

INVENTORY FORM CONTINUATION SHEET

Town
NATICK

Property Address
SSC NATICK
Area(s) Form No.

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

| | |
|---|--------------------------------------|
| D | NAT. 232- 236, 257- 260, #1-#5 |
|---|--------------------------------------|

BIBLIOGRAPHY/REFERENCES (CONTINUED)

Neo-Tech

2002 6. *The Industrial Revolution (1700-present)*. Neo-Tech Home Page. Online (available) www.neo-tech.com/businessmen/part6.html

Nolte, Kelly, Mark A. Steinbeck, Stacey L. Griffin, and Frank J. Schieppati

2002 *Cold War Inventory and National Register Evaluation for Soldier Systems Center (SSC) Natick, Natick, Middlesex County, Massachusetts*. Panamerican Consultants, Inc., Buffalo Branch, Buffalo. Prepared for U.S. Army Soldier Systems Center, Natick, MA under cooperative agreement with U.S. Army Medical Research Acquisition Activity, Fort Detrick, MD.

NRDEC

1986 *Pocket Guide U.S. Army Natick Research, Development & Engineering Center*. NRDEC Pamphlet 10-5. U.S. Army Natick, Research, Development and Engineering Center, Natick, MA.

1994 *Forty Years of Serving Those Who Serve*. U.S. Army Natick Research, Development and Engineering Center, Natick, MA.

Odell, J.C. (Brigadier General)

1954 The New Quartermaster Research & Development Command. *The Quartermaster Review* (July/August). Online (available) http://www.qmfound.com/quartermaster_research_development_command.htm.

Prell, Patricia

1998 Every Chow Line Leads to Natick; All Military Menus are Tested and Approved at Natick. *The Warrior* (November-December). Online (available) <http://www.Seabeecook.com/cookery/recipes/Natick.htm>.

Quartermaster Research and Development Center (QRDC)

1954 *U.S. Army Quartermaster Laboratories, Past and Present*. Photograph scrapbook. On file, Directorate of Public Works, Soldier Systems Center, Natick, MA.

Quartermaster Research and Development Command

1955 *Quarterly Status Report (1 May - 31 July 1955) on the Radiation Sterilization Project 7-84-01-002*. Quartermaster Food and Container Institute for the Armed Forces, U.S. Army Quartermaster Corps Research and Development Command, Chicago. Online (available) <http://www.nal.usda.gov/fnic/.Foodirad-v1.html>.

Quartermaster Review, The

1954a Research and Development. *The Quartermaster Review* (January-February):66.

NAT D

INVENTORY FORM CONTINUATION SHEET

Town
NATICK

Property Address
SSC NATICK
Area(s) Form No.

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

| | |
|---|--------------------------------------|
| D | NAT. 232- 236, 257- 260, #1-#5 |
|---|--------------------------------------|

BIBLIOGRAPHY/REFERENCES (CONTINUED)

1954b Dedication Ceremonies: QM Research and Development Center. *The Quartermaster Review* (November-December): 24-25.

1955 Research and Development. *The Quartermaster Review* (July-August): 56, 99-100.

1957a Environmental Research. *The Quartermaster Review* (May-June): 22-24, 97-105.

1957c Environmental Research. *The Quartermaster Review* (September-October): 12- 13, 112, 115.

1958 Research & Engineering. *The Quartermaster Review* (May-June): 62, 65, 106-107.

1961 Research and Engineering. *The Quartermaster Review* (January-February): 62-63.

Review, The

1962 QM Research & Engineering Center. *The Review* (January-February):10-11.

Sherfy, Marcella, and W. Ray Luce

nd *Guidelines for Evaluating and Nominating Properties that Have Achieved Significance within the Last Fifty Years*. National Register Bulletin 22. U.S. Department of the Interior, National Park Service and Interagency Resources Division, Washington DC.

Simon, Brona

1997 Letter to Joseph L. Ignazio, Director or Planning, USACE, re: Cultural Resource Management Plan, Natick Research, Development and Engineering, Center, MA and NRDEC Housing Area, Hudson, MA #RC.18540 & 16331. From Brona Simon, State Archeologist, Massachusetts, Historical Commission, Boston, Massachusetts, 3 July.

Smalle, Daniel E. (Colonel)

1954 The New QM Research and Development Center. *The Quartermaster Review* (July-August): 11, 140.

Society of Architectural Historians

2002 *American Architects Biographies*. Society of Architectural Historians. Online (available). www.sah.org/aame/biof.html

Soldier Systems Center (SSC) Natick Real Property

nd Real Property Inventory. On file at the Facilities Engineering Office, SSC Natick.

Today in Science History

2002 May 22. Today in Science History. Online (available) www.todayinsci.com/5/5_22.htm.

NAT. D

INVENTORY FORM CONTINUATION SHEET

Town
NATICK

Property Address
SSC NATICK

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

Area(s) Form No.

| | |
|---|--------------------------------------|
| D | NAT. 232- 236, 257- 260, #1-#5 |
|---|--------------------------------------|

BIBLIOGRAPHY/REFERENCES (CONTINUED)

Tressler, Donald K.

1956 *History and Status of the Quartermaster Corps Radiation Preservation of Foods Project (7-84-01-002)*. Quartermaster Food and Container Institute for the Armed Forces, U.S. Army Quartermaster Corps Research and Engineering Command, Chicago. Online (available) [http://www.nal.usda.gov/fnic/Foodirad -v1.html](http://www.nal.usda.gov/fnic/Foodirad-v1.html).

TROSCOM (Troop Support Command)

1984 *Fiscal Year 1984 Annual Laboratories Posture Report*. U.S. Army Troop Support Command, St. Louis.

USACE (U.S. Army Corps of Engineers), Fort Worth

1997 *Cold War Property Identification, Evaluation and Management Guidelines*. U.S. Corps of Engineers, Fort Worth District, Fort Worth, TX.

USACE, NED (New England District)

1997 *Cultural Resource Management Plan U.S. Army Soldier Systems Command (USASSC), Natick, Massachusetts*. U.S. Army Corps of Engineers, New England District, Waltham, MA, prepared for U.S. Army Soldier Systems Command, Natick, MA.

USARIEM (U.S. Army Research Institute of Environmental Medicine)

2001 *USARIEM History & Background*. U.S. Army Research Institute of Environmental Medicine, Natick, MA. Online (available) <http://www.usariem.army.mil/ariemhis.htm>.

USAMRMC (US Army Medical Research and Material Command)

1998 *U.S. Army Research Institute of Environmental Medicine Environmental Assessment*. U.S. Army Medical Research and Material Command, Fort Detrick, MD with technical assistance from BSA Environmental Services, Inc., Beachwood, OH, under subcontract to Science Applications International Corporation, Frederick, MD.

USASSC (U.S. Army Soldier Systems Center)

1998 *A Quick History of Army Research at Natick, Mass.* U.S. Army Soldier System Center, Natick, MA. *SBCCOM Online*. Online (available) [http://www.ssc.army.mil/natick/ history.htm](http://www.ssc.army.mil/natick/history.htm).

Weikert C.W.

1956 *The Army Tent*. *The Quartermaster Review* (March-April):24-28, 106.

NAT D

INVENTORY FORM CONTINUATION SHEET

Community
NATICK

Property Address
SSC NATICK
Area(s) Form No.

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

| | |
|---|--------------------------------------|
| D | NAT. 232- 236, 257- 260, #1-#5 |
|---|--------------------------------------|

National Register of Historic Places Criteria Statement Form

Check all that apply:

- Individually eligible Eligible **only** in a historic district
- Contributing to a potential historic district Potential historic district

Criteria: A B C D

Criteria Considerations: A B C D E F G

Statement of Significance by Stacey L. Griffin and Kelly Nolte, Panamerican Consultants, Inc. July 2002
The criteria that are checked in the above sections must be justified here.

The location of the Quartermaster Research and Development Center (QRDC), authorized by Congress in 1949 with an \$11 million appropriation, was chosen by the Quartermaster Corps from some 300 possible sites. The New England area was favored due to its proximity to a number of major research universities, its wide range of climatic variations, and the potential water supply from Lake Cochituate. Construction began in 1952, and in October 1953 the QRDC was officially named and designated a permanent installation. The QRDC was the "first center in the country to combine the study of the human reaction to the environment with the study of military equipment under virtually all known climatic conditions" (USAC, NED 1997:IV-6). The pressing need for this type of facility, known by its founder BG Georges F. Doriot as "The Institute of Man," grew out of the military's experience in World War II and the Korean War. This new facility allowed the Army to research and develop food, clothing, and organizational equipment such as tents and parachutes to the exacting standards vital to the support of the individual combat soldier. Now known as the U. S. Army Soldier Systems Center (SSC) Natick under the U. S. Army Soldier and Biological Chemical Command (SBCCOM), the installation remains unique in its research and development of food, clothing, shelters, airdrop systems, and support items addressing the current and future needs of the combat soldier.

In response to a 1997 Cultural Resources Management Plan evaluation (USACE, NED 1997) and an architectural evaluation of SSC Natick (Atwood 1997), the Massachusetts Historical Commission ruled the original 1950s Quartermaster Research and Development Center (Buildings 1,2,3,4,5,7,8,15, and 19) not eligible for listing in the NRHP, as the buildings were not yet 50 years old. The MHC further stated, however, that the complex possessed significance as the first center in the country to combine the study of the human reaction to the environment with the study of military equipment under virtually all known climatic conditions.

NAT D

INVENTORY FORM CONTINUATION SHEET

Town
NATICK

Property Address
SSC NATICK

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

Area(s) Form No.

| | |
|---|-------------------------------------|
| D | NAT. 232- 236, 257- 260,#1-#5 |
|---|-------------------------------------|

CRITERIA STATEMENT (CONTINUED)

MHC staff recommended, "that the complex be re-evaluated for National Register eligibility once all of the buildings in the complex are fifty years old" (Simon 1997:1).

In 2001, Panamerican Consultants, Inc. (PCI) identified the 27 structures of the original QRDC laboratory complex (most built between 1953 and 1956) that are now within three years of becoming 50 years old (see Table 1). Based on the NRHP criteria and various Army contexts, the Army has developed a set of guidelines for evaluating properties specifying that properties "within five years...of attaining the 50 year mark be evaluated under normal NRHP criteria" (USACE, Ft. Worth 1997:37). Prompted by the completion of the Cold War era inventory and National Register evaluation of SSC Natick for the U. S. Army Medical Research Acquisition Activity (USAMRAA) (Nolte et al. 2002), PCI submits to the MHC a list of 14 properties as the Quartermaster Research and Development Center Historic District for NRHP eligibility determination: Buildings 1, 2, 3, 4, 5, 6, 7, 8, 15, 16, 19, 36, 42, and 71.

Although only 9 buildings (Buildings 1, 2, 3, 4, 5, 7, 8, 15, and 19) were originally presented to the MHC (Atwood 1997), it is PCI's recommendation that the potential historic district include a total of 40 properties to comprehensively represent the research and development programs initiated at the Quartermaster Research and Development Center (Table 2). Boundaries for the potential historic district (starting and ending at the main entrance gate) include to the north, (moving west from the main entrance) the reservation boundary along Kansas Street to the intersection at Third Avenue and continue west along A Street (behind Buildings 7, 8, 9, 10, 12, 73, and 14); to the west, the shoreline of Lake Cochituate parallel with First Avenue (behind Buildings 14, 38, 82, 31, 16, 37, 36, and Parking K); to the south, the shoreline of Lake Cochituate from Parking K to the southwest corner of Building 45 (behind Buildings 19 and 22) and then parallel with C Street (behind Buildings 45, 2, and 42); and to the east, the shoreline of Lake Cochituate (from the southeast corner of Building 42 behind Buildings 43, 65, 42, 74, and 1) up to the main entrance (Figure 20).

Of the 40 properties within the potential historic district, 14 properties are considered contributing and 26 non-contributing. The contributing properties by their original names are: Building 1, Quartermaster Administration (1954); Building 2, Doriot Climatic Chambers (1955); Building 3, Research (1954); Building 4, Development (1954); Building 5, Technology and Engineering (1954); Building S-6, Guard House (1954); Building 7, Laboratory Test Building (1955); Building 8, Hazardous Research Building (1954); Building 15, Enlisted Barracks with mess (1953); Building 16, QM Radiation Laboratory for U.S. Atomic Energy Commission (1962); Building 19, Boiler and Pump House (1953); Building 36, Engineering Laboratory (1964); and Building 42, Environmental Medicine Building (1968); and Building 71, the central flag pole (1954). Further discussion of each contributing building is provided on associated MHC Forms B and C.

Eleven of the 14 contributing buildings are from the original QRDC laboratory complex, built between 1953 and 1956. These include Buildings 1, 2, 3, 4, 5, 6, 7, 8, 15, 19, and 71. These buildings housed the initial research and development program labs. Three structures, Buildings 16, 36, and 42, were completed during the installation's second wave of construction in the 1960s, during the mid Cold War years, and represent the expanding research programs at the installation. Two of these buildings, Building 16 and 36, are directly related to the Center's work on food, which eventually led to Natick's becoming the Department of Defense feeding

NAT.D

INVENTORY FORM CONTINUATION SHEET

Town
NATICK

Property Address
SSC NATICK
Area(s) Form No.

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

| | |
|---|--------------------------------------|
| D | NAT. 232- 236, 257- 260, #1-#5 |
|---|--------------------------------------|

CRITERIA STATEMENT (CONTINUED)

center. Building 42 was built to support the Surgeon General's expanded use of the Climatic Chambers. Though not within the 45-years of age specified by the Army for NRHP consideration (USACE, Ft. Worth 1997: 37), Buildings 16, 36, and 42 represent the logical extensions of research and development work that began in the original laboratory complex and should therefore be included in the proposed district. Although the Laboratories are less than 50 years old, because they are an "integral part of [a] district," they are eligible for listing on the NRHP as part of a district (Sherfy and Luce ND: 3).

Recognizing SSC Natick's unique historical significance as an important artifact of the Cold War era (1946-1989), it is PCI's recommendation that the buildings associated with the original laboratory complex form a historic district potentially eligible for listing in the NRHP under Criteria A and C at the national level, as the Quartermaster Research and Development Center Historic District.

The QRDC was the "first [and remains the only centralized] center in the country to combine the study of the human reaction to the environment and with the study of military equipment under virtually all known climatic conditions" (USACE, NED 1997:IV-6). Known as "The Institute of Man," this facility allowed the Army to research and develop food, clothing, and organizational equipment such as tents and parachutes to exacting standards and remains unique in its research and development programs.

As such, the proposed Quartermaster Research and Development Center Historic District illustrates the Army's historic and current response to the need to develop measured scientific responses in the form of clothing, food, and equipment for use in fighting global hot wars (Criterion A). Retaining a high-degree of integrity in location, design, setting, materials, feeling, and association, the contributing buildings within the proposed historic district represent a state-of-the-art architectural response to a host of exotic needs such as the testing and disposal of toxic chemicals and the ability to grow fungi, molds, and food bacteria. The Ballinger Company's design provides especially strong support systems to hold a changing variety of test equipment housed within a community of functional, sleek, and modern buildings of the International and contemporary styles (Criterion C).

NAT. D

INVENTORY FORM CONTINUATION SHEET

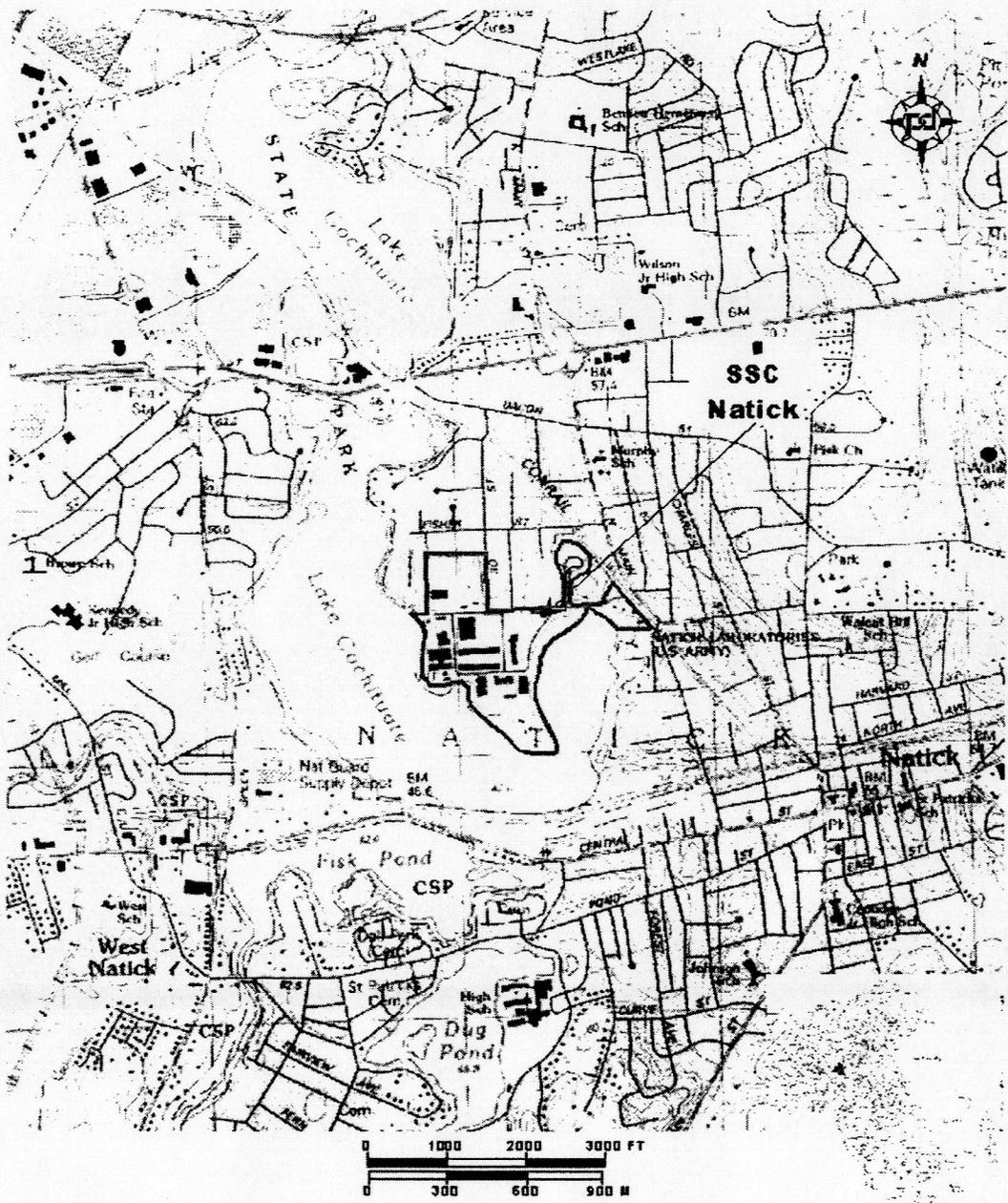
MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
210 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

Town
NATICK

Property Address
SSC NATICK
Area(s) Form No.

D NAT. 232-
236, 257-
260, #1-#5

Figure 1. Map - Location of SSC Natick, Middlesex County, Massachusetts.



NAT D

INVENTORY FORM CONTINUATION SHEET

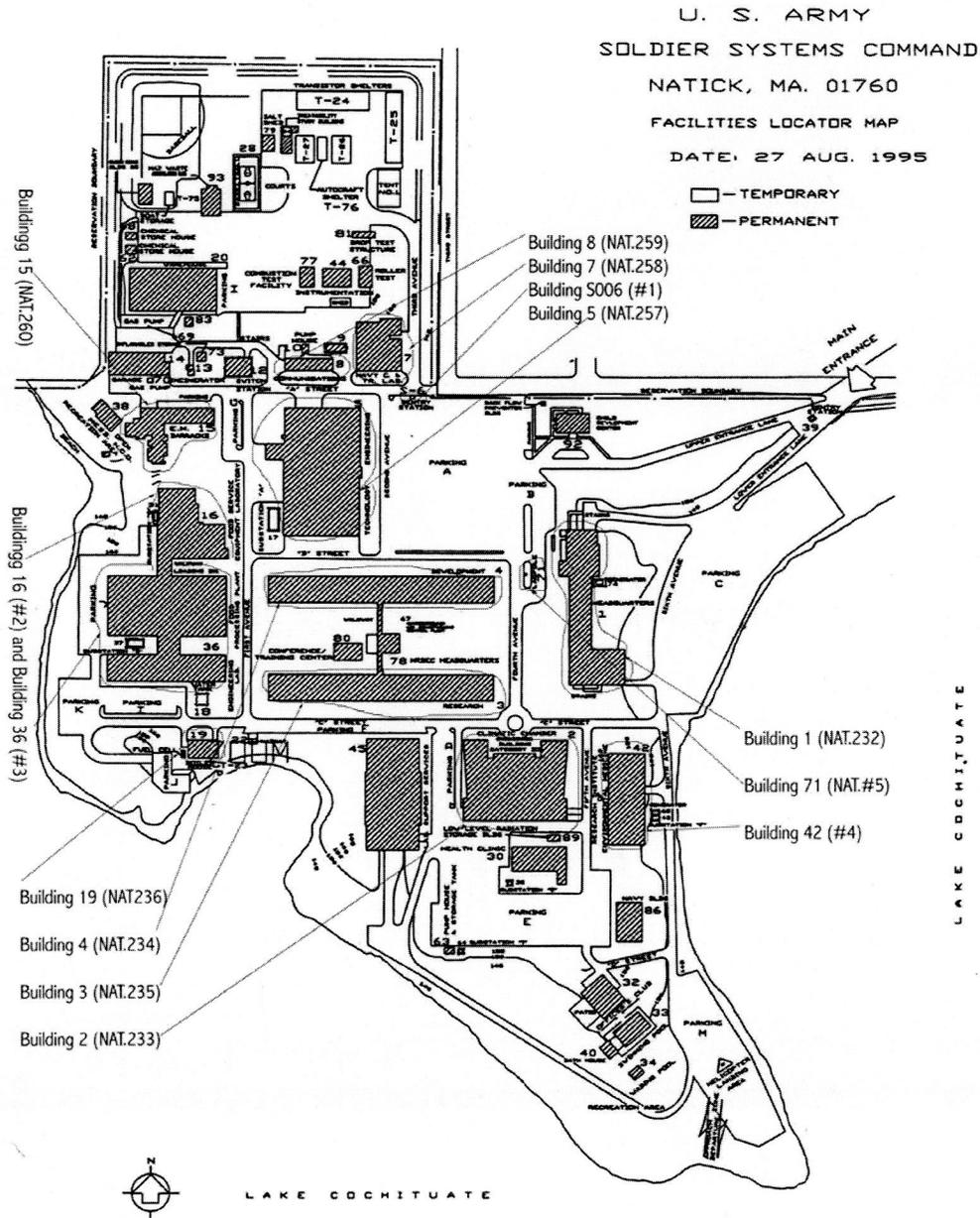
Town
NATICK

Property Address
SSC NATICK

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

| | |
|---------|------------------------------|
| Area(s) | Form No. |
| D | NAT. 232-236, 257-260, #1-#5 |

Area Form Sketch Map



NAT.D

INVENTORY FORM CONTINUATION SHEET

Town
NATICK

Property Address
SSC NATICK

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

Area(s) Form No.

| | |
|---|--------------------------------------|
| D | NAT. 232- 236, 257- 260, #1-#5 |
|---|--------------------------------------|

**Proposed Quartermaster Research and Development Center Historic District
SSC Natick Area Data Sheet**

| MHC Inv. No. | Building Number | Building Name | Address | Year Built | Arch./Builder | Architectural Style |
|--------------|-----------------|---|--|------------|--|------------------------|
| NAT. 232 | 1 | Administration Building-Headquarters | Fourth Avenue | 1954 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| NAT.233 | 2 | Doriot Climatic Chambers | C Street | 1955 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| NAT. 235 | 3 | Research Building | Fourth Avenue | 1954 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| NAT. 234 | 4 | Development Building | Fourth Avenue | 1954 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| NAT. 257 | 5 | Soldier Systems Technology Engineering Building | Second Avenue | 1954 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| #1 | 6 | Sentry Station | A Street | 1954 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | Standardized Army Plan |
| NAT. 258 | 7 | U. S. Navy Clothing and Textile Research Facility | A Street | 1955 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| NAT. 259 | 8 | Administration/General Purpose Building | A Street | 1954 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| NAT. 260 | 15 | Soldier Systems Center Enlisted Quarters & Dining Facility | First Avenue | 1953 | Ballinger Co. Arch-Eng/Geo. A. Fuller, Contractor | International |
| #2 | 16 | Food Service Equipment Laboratory | First Avenue | 1962 | Associated Nucleonics, Inc. of Stone & Webster Eng Corp | Contemporary |
| NAT. 236 | 19 | Heating Plant | C Street | 1953 | Ballinger Co. Arch-Eng/ Geo. A. Fuller, Contractor | International |
| #3 | 36 | DoD Combat Feeding Program (Food Engineering & Processing Plant) | First Avenue | 1964 | Perry Shaw Hepburn & Dean, Boston, MA | Contemporary |
| #4 | 42 | U. S. Army Research Institute of Environmental Medicine (USARIEM) | Fifth Avenue | 1968 | Sovereign Construction Co, Fort Lee, NJ Contractor | Contemporary |
| #5 | 71 | Flagpole | Median west of Building 1, Fourth Avenue | 1954 | Planned by Ballinger Co; Erected by Geo. A. Fuller, Contractor | Standardized Army Plan |

INVENTORY FORM CONTINUATION SHEET

MASSACHUSETTS HISTORICAL COMMISSION
 MASSACHUSETTS ARCHIVES BUILDING
 220 MORRISSEY BOULEVARD
 BOSTON, MASSACHUSETTS 02125

Town
 NATICK

Property Address
 SSC NATICK

Area(s) Form No.

D
 NAT.232-
 236, 257-
 260, #1-#5

**Twenty-Seven Original Properties Constructed at Quartermaster Research Development Center (1952-1956)
 SSC Natick**

| Building # | Building Name | Built | Original Use | Revised Use | Current Use | Architect/ Builder | Construction Material |
|------------|---|-------|---|---|--|---|--|
| 1 | Administration Building- Headquarters (MHC Form NAT. 232) | 1954 | Quartermaster Administration Building | Quartermaster Administration Building | Headquarters, Administration Building | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Reinforced Concrete, Built-Up Tar |
| 2 | Doriot Climatic Chambers (MHC Form NAT. 233) | 1955 | Climatic Chambers | Climatic Chambers | Climatic Chambers | Ballinger Co. / Arthur E. Magher, Contractor | Concrete, Reinforced Concrete, Flat Tar & Gravel |
| 3 | Research Building (MHC Form NAT. 235) | 1954 | Research Building | Research Building | Research Building | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Reinforced Concrete, Built-Up Tar |
| 4 | Development Building (MHC Form NAT. 234) | 1954 | Development Building | Development Building | Development Building | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Reinforced Concrete, Built-Up Tar |
| 5 | Soldier Systems Technology Engineering Building (MHC Form NAT. 257) | 1954 | Technology Engineering and Shop Building | Technology Engineering and Shop Building | NonMil Mat Fac | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Reinforced Concrete, Built-Up Tar |
| S0006 | Sentry Station | 1954 | Sentry Station | Sentry Station | Access Control Facility | Ballinger Co./ George A. Fulmer, Contractor | Concrete Slab, Asbestos Siding, Roll Sheathing |
| 7 | U. S. Navy Clothing and Textile Research Facility (MHC Form NAT. 258) | 1955 | Special Test Building | Special Test Building | U. S. Navy Clothing and Textile Research Facility | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Reinforced Concrete, Built-Up Tar |
| 8 | Administration General Purpose (MHC Form NAT. 259) | 1954 | Bio-Chemical Engineering Laboratory (Hazardous Research Building) | Communication Center | Administration General Purpose / Vacant | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Reinforced Concrete, Built-Up Tar |
| 9 | Special Test Building | 1954 | Substation | Substation | Substation | | |
| 10 | Storage | 1954 | Pump Station | Storage | Storage GP Inst | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Concrete Block, 5 ply asphalt on concrete |
| 11 | Fuel Storage Tank | 1954 | Storage Tank | | Demolished | | |
| 12 | Electrical Switching Station | 1954 | Electrical Switching Station | Electrical Switching Station | Electrical Switching Station | | |
| 13 | Incinerator | 1954 | Incinerator | | Demolished | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Brick |
| 14 | Multi-Use Building (Garage/Storage/ACS Center) | 1956 | Vehicle Component Building Facility Depct | Multi-Use Building | Multi-Use Building | Ballinger Co./ George A. Fulmer, Contractor | Concrete, Concrete Block, Concrete |

NAT. D