

**FINAL**

# **HISTORIC BUILDING INVENTORY AND EVALUATION REPORT**



**GENERAL MITCHELL INTERNATIONAL AIRPORT  
AIR RESERVE STATION**

**MILWAUKEE, WISCONSIN**

June 2007

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## EXECUTIVE SUMMARY

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### S.1 PURPOSE AND NEED

This Historic Building Inventory and Evaluation Report was undertaken by the US Air Force, Headquarters, Air Force Center for Environmental Excellence (AFCEE) in conjunction with the disposal and reuse of General Mitchell International Airport (IAP) Air Reserve Station (ARS) in the City of Milwaukee, Milwaukee County, Wisconsin. General Mitchell IAP ARS occupies a 102-acre tract located at the southwest corner of General Mitchell IAP, the principal airport in the City of Milwaukee. The transfer of the property is being undertaken in accordance with the federal Defense Base Closure and Realignment Act (DBCRA) of 1990, commonly known as Base Realignment and Closure (BRAC). In 2005, General Mitchell IAP ARS was selected for closure through the BRAC process, and it is anticipated that the installation will close in 2008 (Mehring, August 8, 2006; Guenther, pers. comm., March 15, 2007).

The purpose of this report is to identify potentially significant historic architectural resources in the area of potential effect (APE) in accordance with Section 106 of the National Historic Preservation Act (NHPA) (16 USC 470f). Under Section 106 of NHPA, codified as 36 Code of Federal Regulations (CFR) Part 800-Protection of Historic Properties, prior to execution of an undertaking, including transfer of property out of federal hands, the federal agency, in this case AFCEE, is required to consider the undertaking's impact on any district, site, building, structure or object that is listed in or eligible for listing in the National Register of Historic Places (National Register).

In accordance with 36 CFR Part 800, if adverse effects to National Register-listed and/or National Register-eligible resources occur as a result of the undertaking, Section 106 requires that the federal agency collaborate with consulting parties, including the Wisconsin Historical Society, Department of Historic Preservation/Public History (WHS DHP/PH) (also known as the Wisconsin State Historic Preservation Office [SHPO]), and other interested parties identified as part of the Section 106 process. The goal of the collaboration is to develop and implement mitigation measures to eliminate adverse effects, lessen adverse effects to non-adverse level, or mitigate unavoidable adverse effects through recordation or documentation of historic architectural resources.

### S.2 AREA OF POTENTIAL EFFECT

The APE for this project has been developed to account for potential direct and indirect effects of the proposed action on historic architectural resources. In accordance with Section 106 of NHPA, direct effects include, but are not limited to, physical damage or destruction of all or part of a property; physical alterations; moving or realigning a historic property; and/or isolating a property from its setting. Indirect effects may include visual, audible or atmospheric intrusions; shadow effects; vibrations; and changes in access or use.

The APE includes the 102-acre General Mitchell IAP ARS tract situated in the southern section of the City of Milwaukee. The APE is bound to the north by a historic church and airport property; the south by residential, commercial, and institutional buildings situated on the north side of East College Avenue; the east by General Mitchell IAP Runway 1-

19R; and the west by residential and commercial buildings and a historic cemetery situated on the east side of South Howell Avenue.

The APE possesses a flat topography typically associated with an airport. The majority of the tract consists of developed and paved surfaces. While the majority of the western portion of the tract consists of intersecting streets flanked by administrative and maintenance buildings, the eastern portion of the tract is dominated by aviation-related structures, including the apron, hangars, and other aircraft maintenance structures, and Petroleum, Oil & Lubricants (POL) Area where jet fuel is stored.

Within the APE, 90 buildings and structures at General Mitchell IAP ARS have been assigned facility addresses (General Mitchell IAP ARS, March 15, 2007). Real property record cards were reviewed to identify all buildings and structures within the APE that are 50 years old or will be 50 years old by 2012, a few years after the projected transfer date of the installation which is scheduled for 2008. The records indicate that 15 historic architectural resources were constructed between 1956-62 and are 50 years old or will be 50 years old by 2012 (General Mitchell IAP ARS, October 10, 2006). As a result, each of the 15 resources was surveyed for this Historic Building Inventory and Evaluation Report.

Three historic architectural resources were also identified adjacent to the APE. These include:

- National Register-listed New Coeln House, 5905 South Howell Avenue, Milwaukee, Wisconsin.
- Surveyed, unevaluated 5867 South Howell Avenue, Milwaukee, Wisconsin.
- Honorary Milwaukee Landmark St. Stephen's Church, 5880 South Howell Avenue and associated cemetery on east side of South Howell Avenue, Milwaukee, Wisconsin.

### **S.3 PRIOR EVALUATIONS**

One prior study has been conducted at General Mitchell IAP ARS. In 1996, Headquarters, US Air Force Reserve (AFRES) prepared the *Final Cultural Resources Management Plan (CRMP), General Mitchell Air Reserve Station, Milwaukee, Wisconsin* (AFRES, 1996). At the time that the Final CRMP was prepared, no buildings or structures at the installation were over 50 years old, the age requirement for consideration to be listed or recommended eligible for listing in the National Register. The oldest buildings and structures at the installation were erected in 1956, and therefore, were 40 years old in 1996.

Buildings and structures less than 50 years old could qualify for listing in the National Register if they are exceptionally significant (US Department of Interior [US DOI], 1991). Therefore, the CRMP evaluated buildings and structures at General Mitchell IAP ARS to determine whether they were exceptionally significant for the role that they played during the Cold War (1946-89). The report concluded that none of the buildings and structures fulfill the exceptional significance criterion, and recommended that a historic architectural survey of General Mitchell IAP ARS occur when buildings and structures reach 50 years

of age, beginning in 2006. In 1996, WHS DHP/PH concurred with the Final CRMP findings (Banker, May 6, 1998).

#### **S.4 RESULTS OF SURVEY**

Two of the 15 resources at General Mitchell IAP ARS that are over 50 years old are recommended National Register-eligible for their state and local historic significance. Table S-1, Results of Historic Building Inventory and Evaluation, summarizes the survey findings.

#### **S.5 CONCLUSIONS AND RECOMMENDATIONS**

Two recommended National Register-eligible resources are located at General Mitchell IAP ARS: Building 102 and Building 217. Under Section 106 of NHPA, transfer of this property out of federal hands may have an adverse effect on these two historic architectural resources. AFCEE will consult with WHS DHP/PH to examine methods to mitigate these potential adverse impacts, including the possibility of documenting the resources to the standards of the Historic American Buildings Survey (HABS), or the WHS DHP/PH equivalent, and by establishing a Memorandum of Agreement (MOA) for the divestiture of these two resources.

Table S-1

Results of Historic Building Inventory and Evaluation  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	National Register Eligibility Recommendation	Integrity	Description
Building 102  6145 South B Street  West side of South B Street	Technical Training Building	Reserve Forces Operational Training	1957	National Register eligible under Criteria A and C for its state and local historic significance, and its architectural design, respectively. Building 102 appears to be National Register eligible under Criterion A, history, because it survives as a good example of a key administrative building at Wisconsin's only surviving AFRES installation. Since its construction in 1957, the national and international activities of the 440 <sup>th</sup> Airlift Wing (AW) have been coordinated and overseen in this building. Building 102 also appears to be National Register-eligible under Criterion C, design. Conceived by Gates Weiss & Kramer under contract to the USACE Chicago District, it survives as an excellent example of an International-style building at a federal military installation.	Retains high integrity	Two-story, 45,317 square-foot International-style E-plan brick building on concrete foundation; capped by flat roof with overhanging eaves; modern fenestration; continuous concrete lintel divides first and second stories; fronted on east by flat lawn with intersecting concrete sidewalks.

Table S-1 (con't)

Results of Historic Building Inventory and Evaluation  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	National Register Eligibility Recommendation	Integrity	Description
Building 104 225 West 7 <sup>th</sup> Avenue South side of West 7 <sup>th</sup> Avenue	Automotive Maintenance Shop	Vehicle Maintenance Shop	1959	Not recommended National Register eligible	Lacks architectural distinction	Two-story, 7,676 square-foot brick and concrete block building sheathed in stucco panels; concrete foundation; flat roof; modern fenestration; high-bay section accommodates garage; additions and improvements in 1980s and 1990s.
Building 110 6045 South B Street West side of South B Street	CONAC 50-Man Dormitory	Gymnasium	1962	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 3,384 square-foot International-style concrete block building sheathed in stucco; concrete foundation; pitched flat roof; modern fenestration; converted into gymnasium in 1980s.
Building 111 6035 South B Street West side of South B Street	50-Man Dormitory	Open Mess, Consolidated	1962	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 3,384 square-foot International-style concrete block building sheathed in stucco; concrete foundation; pitched flat roof; modern fenestration; converted into mess in the 1980s.

Table S-1 (con't)

Results of Historic Building Inventory and Evaluation  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	National Register Eligibility Recommendation	Integrity	Description
Building 112 6025 South B Street West side of South B Street	Parachute & Dinghy Shop	Shop, Survival Equipment	1962	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 4,414 square-foot concrete block building with aluminum parachute drying tower; concrete foundation; pitched flat roof; addition constructed in 1970s.
Building 120 300 East College Avenue West Gate, east side of South Howell Avenue	Booster Pumping Station	Fire Protection Pump House	1958	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 846 square-foot concrete block building; concrete foundation; flat roof.
Building 205, Sections A-E 6188 South B Street East side of South B Street	Warehouse	Supply & Equipment Warehouse	1956	Not recommended National Register eligible	Lacks architectural distinction	Two-story, 56,130 square-foot concrete block building sheathed in stucco panels; concrete foundation; flat roof; modern fenestration; Sections B-C constructed in 1960s; Section D constructed in 1970s; Section E constructed in 1980s; Sections divided by sliding firewall on interior.

Table S-1 (con't)

Results of Historic Building Inventory and Evaluation  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	National Register Eligibility Recommendation	Integrity	Description
Building 212 380 East 6 <sup>th</sup> Avenue North side of East 6 <sup>th</sup> Avenue	Fire & Crash Station	Fire Station	1960	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 10,612 square-foot brick building with high-bay garage; concrete foundation; pitched flat roof; additions constructed 1960s-90s.
Building 217 6036 South B Street East side of South B Street and west side of apron	Maintenance Hangar	Maintenance Hangar	1956	Recommended National Register eligible under Criteria A and C for its state and local historic significance, and its architectural design, respectively. Building 217 appears to be National Register eligible under Criterion A, history, because it remains as the key aircraft maintenance hangar at Wisconsin's only surviving AFRES installation. Since its construction in 1956, the national	Retains integrity	Two-and-a-half-story, 69,848 square-foot corrugated metal-clad hangar with two-story concrete block shops on east and west facades; massive bi-parting steel rolling doors on north and south facades; interior supported by metal trusswork; upgraded/repaired 1960-present.

Table S-1 (con't)

Results of Historic Building Inventory and Evaluation  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	National Register Eligibility Recommendation	Integrity	Description
Building 217  6036 South B Street  East side of South B Street and west side of apron (con't)				and international airlift activities of the 440 <sup>th</sup> AW have been partially launched from this building. Building 217 also appears to be National Register-eligible under Criterion C, design. Conceived by Gates Weiss & Kramer under contract to the USACE Milwaukee District, it survives as a good example of a mid-20 <sup>th</sup> century hangar erected at a federal military installation.		
Building 300  300 East College Avenue  East side of C Street	Pumping Station	Reserve Forces General Training S	1956	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 846 square-foot concrete block building sheathed in stucco; concrete foundation; flat roof; converted into training facility in 1980s.

Table S-1 (con't)

Results of Historic Building Inventory and Evaluation  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	National Register Eligibility Recommendation	Integrity	Description
Building 301 300 East College Avenue East side of C Street	Reservoir – Ground Storage	Indoor Small Arms Range	1956	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 3,630 square foot earth-covered reinforced concrete structure that accommodates indoor small arms range; exposed west façade; concrete foundation; flat roof; modern frame guard shed atop roof; converted into small arms range in 1980s.
POL Area						
Structure 308 300 East College Avenue South side of East 7 <sup>th</sup> Avenue	Jet Fuel Storage Tank	Jet Fuel Storage Tank	1956	Not recommended National Register eligible	Lacks architectural distinction	Round metal tank in dyke upgraded in 1980s.
Structure 309 300 East College Avenue South side of East 7 <sup>th</sup> Avenue	Jet Fuel Storage & Dispensing	Jet Fuel Fill Stand, Truck	1956	Not recommended National Register eligible	Lacks architectural distinction	Metal canopy over fuel dispensing system; upgraded canopy installed in 1990s.
Building 310 300 East College Avenue South side of East 7 <sup>th</sup> Avenue	Jet Fuel Pump House	Pump Station, Landing Field	1956	Not recommended National Register eligible	Lacks architectural distinction	Single-story, 684 square-foot concrete block building sheathed in stucco; concrete foundation; flat roof.

Table S-1 (con't)

Results of Historic Building Inventory and Evaluation  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	National Register Eligibility Recommendation	Integrity	Description
Ramp Area and Taxiway						
Structures 7101 & 7102 300 East College Avenue East side of General Mitchell IAP ARS	Apron and one Taxiway	Apron (Structure 7101) and one Taxiway (Structure 7102)	1956	Not recommended National Register eligible.	Lacks architectural distinction	106,858 square-yard concrete-paved apron and 16,093 square-yard taxiway; repaired 1960s-present.
Source: General Mitchell IAP ARS, Real Property Records List, October 10, 2006. Building Plans on file at Building 106 (Civil Engineering), General Mitchell IAP ARS. 440 <sup>th</sup> Airlift Wing Archive Project, CD-ROM with historic aerial photographs on file at Building 102 (440 <sup>th</sup> AW Public Affairs Office), General Mitchell IAP ARS.						

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# 1 INTRODUCTION

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This Historic Building Inventory and Evaluation Report was undertaken by the US Air Force, Headquarters, Air Force Center for Environmental Excellence (AFCEE) in conjunction with the disposal and reuse of General Mitchell International Airport (IAP) Air Reserve Station (ARS) in the City of Milwaukee, Milwaukee County, Wisconsin. General Mitchell IAP ARS occupies a 102-acre tract located at the southwest corner of General Mitchell IAP, the principal airport in the City of Milwaukee (Figure 1-1, Regional Map). Under a lease agreement with Milwaukee County, aircraft based at General Mitchell IAP ARS are able to access Runway 1-19R from a taxiway that links the installation to the runway.

The transfer of the property is being undertaken in accordance with the federal Defense Base Closure and Realignment Act (DBCRA) of 1990, commonly known as Base Realignment and Closure (BRAC). In 2005, General Mitchell IAP ARS was selected for closure through the BRAC process, and it is anticipated that the installation will close in 2008 (Mehring, August 8, 2006; Guenther, pers. comm., March 15, 2007).

## 1.1 REGULATORY FRAMEWORK

Numerous laws and regulations require federal agencies to consider the effects of a proposed project on historic architectural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the federal agency proposing the action, and prescribe the relationships between involved agencies (i.e., State Historic Preservation Officer [SHPO], Advisory Council on Historic Preservation [Council]). The primary law governing the treatment of historic architectural resources is the National Historic Preservation Act (NHPA) of 1966, as amended (16 United States Code [USC] 470), which addresses the protection of historic architectural resources.

The purpose of this report is to identify potentially significant historic architectural resources in the project area in accordance with Section 106 of NHPA (16 USC 470f). Under Section 106 of NHPA, codified as 36 Code of Federal Regulations [CFR] Part 800-Protection of Historic Properties, prior to execution of an undertaking, including transfer of property out of federal hands, the federal agency, in this case AFCEE, is required to consider the undertaking's impact on any district, site, building, structure, or object that is listed in or eligible for listing in the National Register of Historic Places (National Register).

In accordance with 36 CFR Part 800, if adverse effects to National Register-listed and/or National Register-eligible historic architectural resources occur as a result of the undertaking, Section 106 requires that the federal agency collaborate with consulting parties, including the Wisconsin Historical Society, Department of Historic Preservation/Public History (WHS DHP/PH) (also known as the Wisconsin SHPO), and, if necessary, the Council and other interested parties identified as part of the Section 106 process. The goal of the collaboration is to develop and implement mitigation measures to eliminate adverse effects, lessen adverse effects to non-adverse level, or mitigate unavoidable adverse effects through recordation or documentation of historic architectural resources.

Section 110 of NHPA mandates that a federal agency inventory and evaluate properties that are owned or under the control of that agency. It also stipulates that the agency must nominate historic properties to the National Register, and develop and implement preservation strategies for maintaining and managing historic properties in a way that preserves their historic, architectural, or cultural values. Section 110 also mandates that, if a historic property is to be demolished or substantially altered, the property be appropriately recorded. Other regulations and legislation also direct federal agencies to preserve important historic, cultural, and natural aspects of the nation's heritage, and to consider these resources in project planning and execution. These directives include, but are not limited to:

- Executive Order (EO) 11593, Protection and Enhancement of the Cultural Environment.
- Historic Sites, Buildings, and Antiquities Act of (16 USC 461).
- Public Buildings Cooperative Use Act (40 USC 601a).
- Antiquities Act (167 USC 431-433).
- National Environmental Policy Act (NEPA) 42 USC 4321-4361).

These regulations have been taken into consideration in the preparation of this report.

## **1.2 AREA OF POTENTIAL EFFECT**

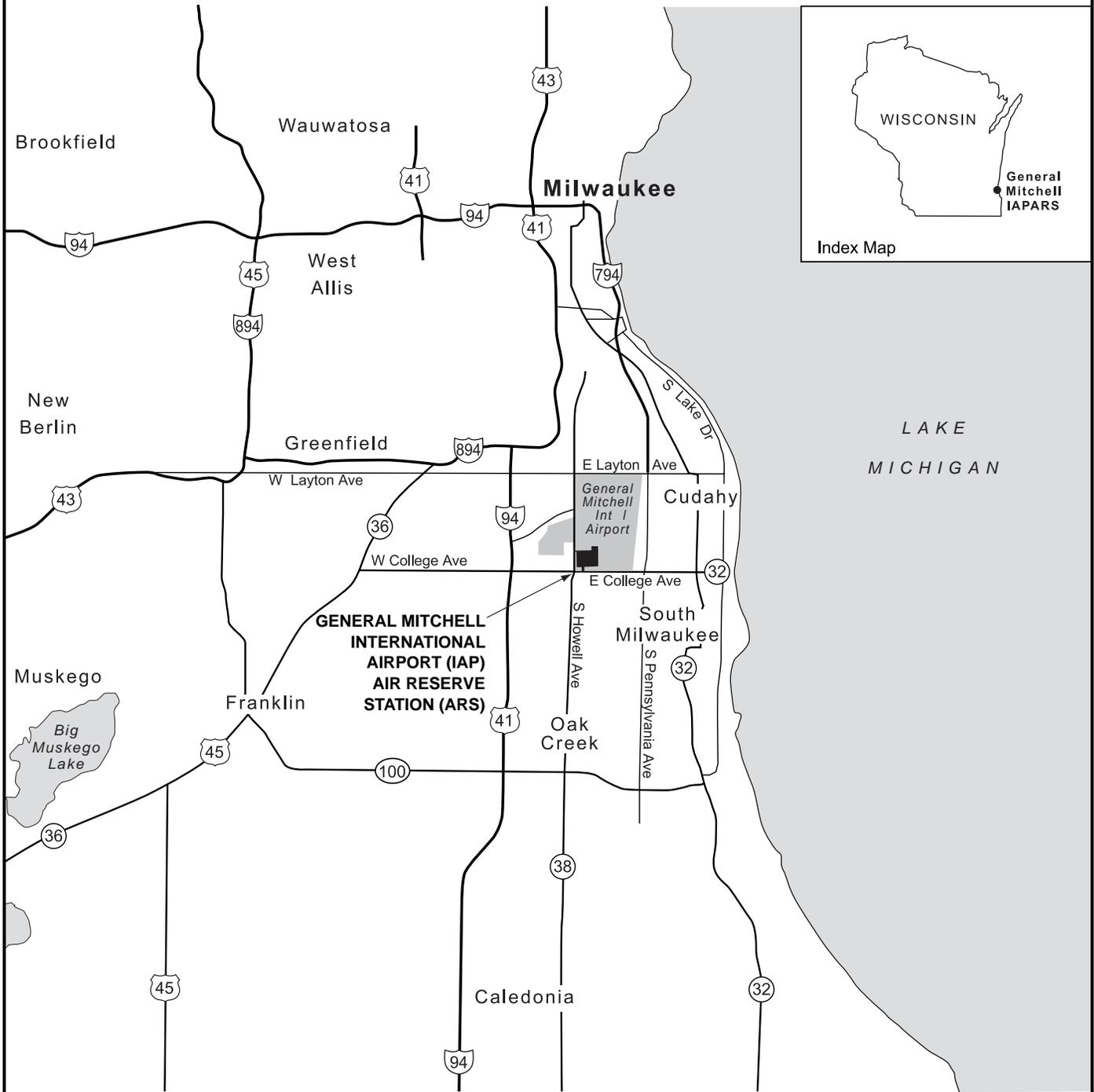
The Area of Potential Effect (APE) for this project has been developed to account for potential direct and indirect effects of the proposed action on historic architectural resources. In accordance with Section 106 of NHPA, direct effects include, but are not limited to, physical damage or destruction of all or part of a property; physical alterations; moving or realigning a historic property; and/or isolating a property from its setting. Indirect effects may include visual, audible or atmospheric intrusions; shadow effects; vibrations; and changes in access or use.

The APE includes the 102-acre General Mitchell IAP ARS situated in the southern section of the City of Milwaukee (Figure 1-2, Area of Potential Effect). It possesses a flat topography typically associated with an airport. The majority of the tract consists of developed and paved surfaces. While the majority of the western portion of the tract consists of intersecting streets flanked by administrative and maintenance buildings, the eastern portion of the tract is dominated by aviation-related structures, including the apron, hangars, and other aircraft maintenance structures, and Petroleum, Oil & Lubricants (POL) Area where jet fuel is stored.

The 102-acre APE tract is bound to the north by a historic church and airport property; the south by residential, commercial, and institutional buildings situated on the north side of East College Avenue; the east by General Mitchell IAP Runway 1-19R; and the west by residential and commercial buildings and a historic cemetery situated on the east side of South Howell Avenue.

General Mitchell IAP ARS real property record cards were reviewed to identify all buildings and structures within the APE that are 50 years old or will be 50 years old by 2012, a few years after the projected transfer date of the installation which is scheduled for 2008 (General Mitchell IAP ARS, October 10, 2006). The records indicate that 15 historic architectural resources were constructed between 1956-62 and are 50 years old

# Regional Map



- Interstate Highway
- US Highway
- State Highway

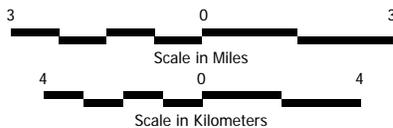
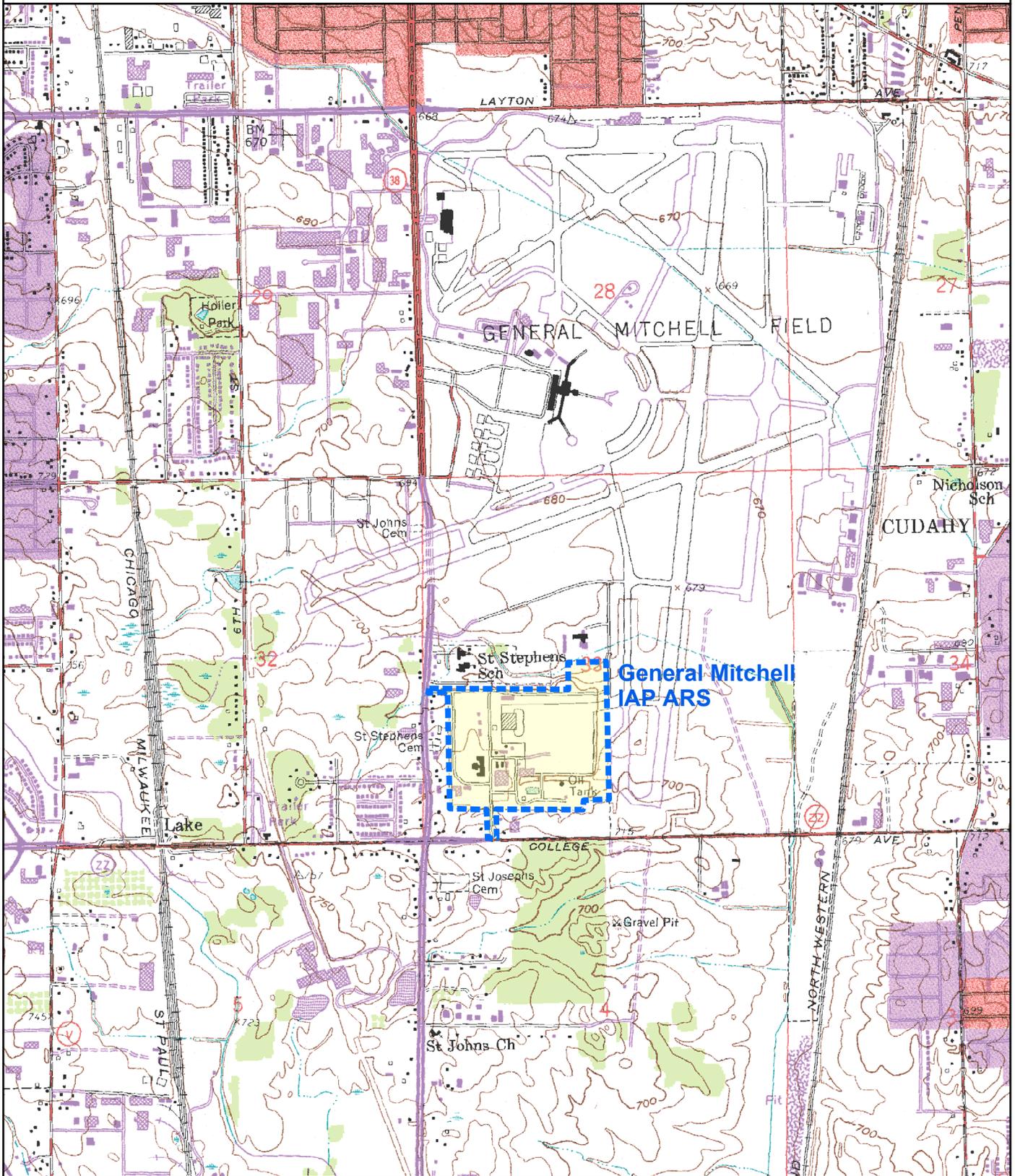


Figure 1-1

# Area of Potential Effect



 Area of Potential Effect

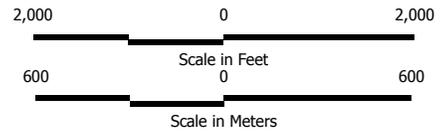


Figure 1-2

or will be 50 years old by 2012. As a result, each of the 15 resources was surveyed for this Historic Building Inventory and Evaluation Report (Figure 1-3, Inventoried Resources).

### **1.3 PREVIOUS HISTORIC RESOURCE INVESTIGATIONS AT GENERAL MITCHELL INTERNATIONAL AIRPORT AIR RESERVE STATION**

One prior study has been conducted at General Mitchell IAP ARS. In 1996, Headquarters, US Air Force Reserve (AFRES) prepared the *Final Cultural Resources Management Plan (CRMP), General Mitchell Air Reserve Station, Milwaukee, Wisconsin* in compliance with Air Force Requirement (AFR) 126-7 as described in Air Force Instruction (AFI) 32-7065 and specified in the 1995 AFRES Environmental Statement of Work-Cultural Resources Management Plan Preparation guidelines (AFRES, 1996). The Final CRMP was also prepared in compliance with Section 110 of NHPA which requires federal agencies to identify and protect historic properties; ensure properties are maintained and managed with due consideration of historic values; and establish procedures to implement Section 106 of NHPA.

At the time that the Final CRMP was prepared, no buildings or structures at the installation were over 50 years old, the age requirement for consideration to be listed or recommended eligible for listing in the National Register. The oldest buildings and structures at the installation were erected in 1956, and therefore, were 40 years old in 1996.

Buildings and structures less than 50 years old could qualify for listing in the National Register if they are exceptionally significant (US Department of Interior [US DOI], 1991). Therefore, the CRMP evaluated buildings and structures at General Mitchell IAP ARS to determine whether they were exceptionally significant for the role that they played during the Cold War (1946-89). The report concluded that none of the buildings and structures appear to fulfill the exceptional significance criterion, and recommended that a historic architectural survey of General Mitchell IAP ARS occur when buildings and structures reach 50 years of age, beginning in 2006.

In 1996, WHS DHP/PH concurred with the Final CRMP findings. Specifically, WHS DHP/PH indicated "The earliest building was constructed in 1956. There is no need to revisit the issue of [National Register] eligibility until the buildings are at least 50 years or older" (Banker, May 6, 1998) (Appendix A: Correspondence). As a result, this Historic Building and Evaluation Report identifies and evaluates 15 historic architectural resources within the General Mitchell IAP ARS APE that are over 50 years old or nearly 50 years old.

### **1.4 OBJECTIVES AND ORGANIZATION OF REPORT**

The objectives of the Historic Building Inventory and Evaluation Report are:

- To identify known National Register-listed and eligible historic architectural resources within and immediately adjacent to the APE.
- To identify National Register-eligible historic architectural resources within the APE.

The report is organized as follows:

- Chapter 2 presents the historic context, including an overview of General Mitchell IAP ARS from its inception in the 1950s through present time.
- Chapter 3 presents the methodology employed for the historic architectural inventory and evaluation.
- Chapter 4 presents the results of the historic architectural inventory and evaluation and National Register eligibility recommendations.
- Chapter 5 presents conclusions and recommendations.
- Chapter 6 presents the bibliography.

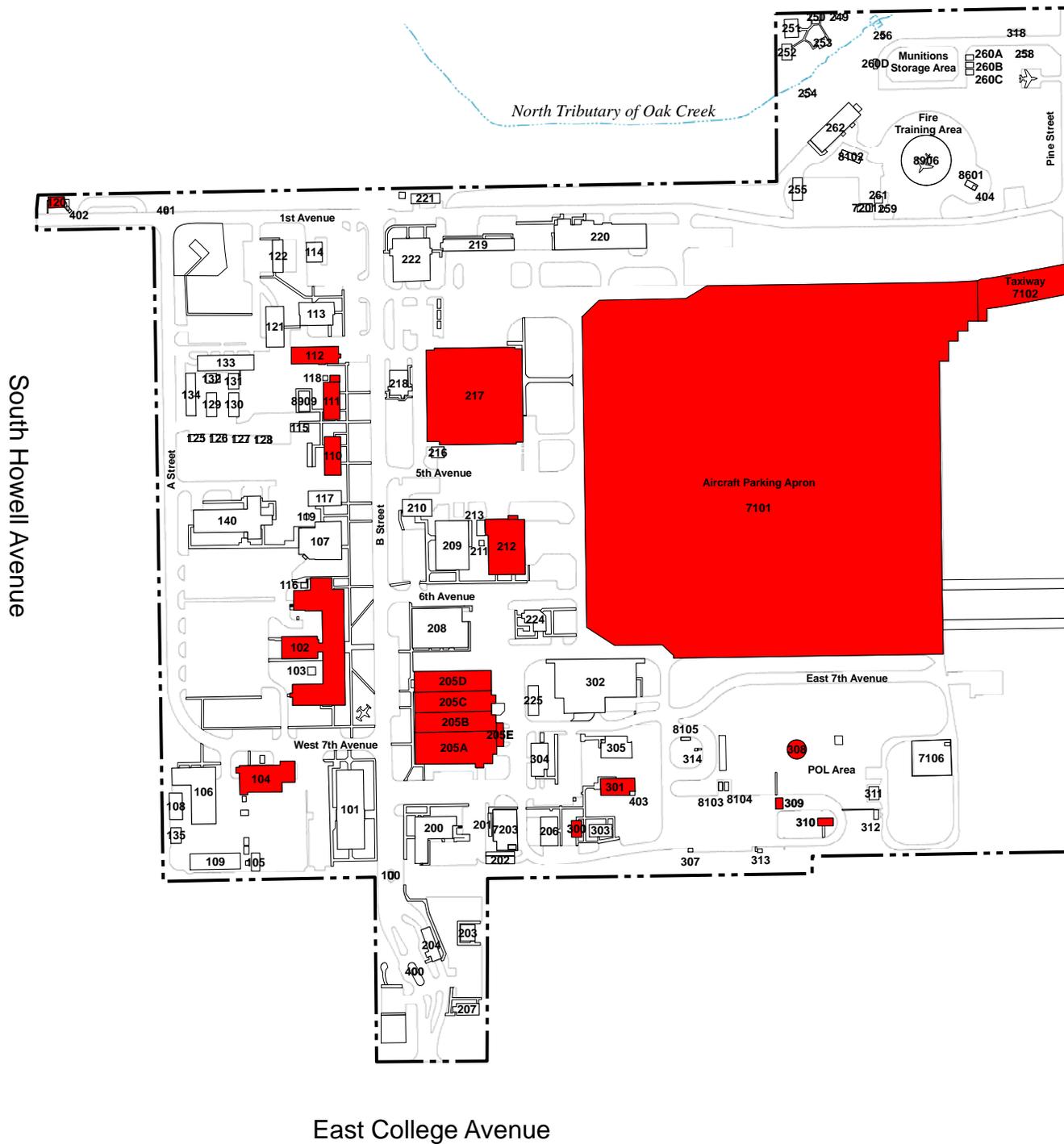
Three appendices are bound in this report, including:

Appendix A: Agency Correspondence

Appendix B: Photographs

Appendix C: Wisconsin Historic Preservation Database (WHPD) Forms

# Inventoried Resources



- Inventoried Historic Architectural Resource
- Installation Boundary
- Creek

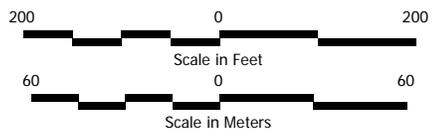


Figure 1-3

## **2 HISTORIC CONTEXT**

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### **2.1 ESTABLISHMENT OF AVIATION ACTIVITIES IN MILWAUKEE COUNTY, 1900-40s**

Over the course of the 20<sup>th</sup> century, aviation became a major transport mode for the general public and a means of strengthening the national defense for the military. In 1903, the Wright Brothers made their successful pioneer flight in Kitty Hawk, North Carolina, ushering in an era of technological advancement in aviation in the US (WHS DHP/PH, 2004a).

During the early 1900s, the impact of the Wright Brothers' innovation impacted Milwaukee. With the US entry into World War I (1917-18) in 1917, a Milwaukee woodworking firm, Matthews Brothers Furniture Company, entered into a contract with the US military to produce wood propellers for the US Navy and US Army. Thomas F. Hamilton (1894-1969), a native of Seattle, Washington, was hired by Matthews Brothers Furniture Company to oversee the military contract. Hamilton had recognized success as a designer of gliders, biplanes, and propellers on the west coast, and relocated to Milwaukee to share his expertise with the furniture company and their new military client. When the war ended in 1918, the furniture company ceased operations and Hamilton purchased the inventory of wood propellers, renaming the company the Hamilton Aero Manufacturing Company, predecessor firm to Hamilton Standard (Hitz, 2000). To test the products manufactured by the Hamilton Aero Manufacturing Company, the company purchased a level 160-acre site located in the southern portion of the City of Milwaukee, one mile west of the City of Cudahy. The site became known as Hamilton Airport (Department of the Air Force, January 1965).

In 1926, Hamilton Airport was acquired by the Milwaukee County Park Commission for use as an airport. In 1929, the county expanded the facility to 310 acres and transferred operation of the airport to the Highway Committee of the Milwaukee County Board of Supervisors. As the number and size of aircraft increased over the course of the 1930s and early 1940s, Hamilton Airport was expanded until it reached one square mile in area by 1942 (Department of the Air Force, January 1965).

### **2.2 ESTABLISHMENT OF GENERAL BILLY MITCHELL FIELD, 1940s**

During the height of US participation in World War II (1941-45), Hamilton Airport was renamed General Mitchell Field. The namesake of the airport was Wisconsin native, General William (Billy) Mitchell (1879-1936). Mitchell was born into a wealthy family and resided in West Allis, a suburb of Milwaukee. At the age of 18, he enlisted as a private in the US Army during the Spanish-American War (1898). In 1917, Mitchell, by then a lieutenant colonel in the US Army, was deployed to France during World War I. An aviation enthusiast, Mitchell collaborated extensively with British and French, studying their aviation strategies and aircraft. Before long, Mitchell had gained enough experience to begin preparations for American air operations. Mitchell was elevated to the rank of brigadier general and commanded US air combat units in France. In September 1918, he planned and led nearly 1,500 British, French, and Italian aircraft in the Battle of Saint-Mihiel, one of the first coordinated air-ground offensives in history. (Hurley, 1975).

Recognized as one of the top US airmen of the war alongside aces such as Eddie Rickenbacker, Mitchell was well known in Europe. He was awarded the Distinguished

Service Cross, the Distinguished Service Medal, and several foreign decorations, but nevertheless, alienated most of his superiors during his 18 months in France. In 1925, he was court-martialed at the direct order of President Calvin Coolidge for criticizing US Army and US Navy leadership in the wake of the crash of a Navy dirigible. Mitchell was found guilty of insubordination and suspended from active duty for five years without pay. He resigned instead in 1926, and spent the final decade of his life promoting air power (Hurley, 1975).

Posthumously, Mitchell was recognized for his contribution to aviation. In 1942, President Franklin D. Roosevelt, recognized Mitchell's contributions to air power, elevated him to the rank of major general on the Army Air Corps retired list, and petitioned the US Congress to authorize a special gold medal for his services to the United States, which was awarded in 1946. In 1943, the US Army renamed General Mitchell Field to differentiate it from New York's Mitchel Field, named for former New York City Mayor John Purroy Mitchel (1879-1918), who was killed in a military training flight in 1918. Thus, Milwaukee's airport was named General Billy Mitchell Field and would carry that designation for over four decades (Department of the Air Force, January 1965).

### **2.3 ESTABLISHMENT OF US AIR FORCE AND US AIR FORCE RESERVE, 1940s**

During World War II, the US Army Air Corps played a significant role in allied victories in both the Atlantic and Pacific theatres. In fact, between 1941-42, 1,500 US Army Air Corps Reserve pilots were on extended active duty following the bombing of Pearl Harbor in 1941, and 1,600 non-rated officers and enlisted personnel provided the Air Corps with necessary reinforcement during the early months of the war (<<http://www.afrc.af.mil/library/afrchistory.asp>> March 30, 2007).

After the war in 1947, the US Air Force was established as a full partner with the US Army, US Navy, and US Marine Corps in the newly formed Department of Defense (DoD). One year later in 1948, the US Air Force Reserve (AFRES) was officially designated (<<http://www.afrc.af.mil/library/afrchistory.asp>> March 30, 2007). The purpose of the reserve was to provide mutual support to the newly formed US Air Force in response to domestic and international situations.

AFRES was destined to play an important role in military affairs as the US entered the Cold War (1946-89), the period of conflict, tension and competition between the US and the Soviet Union, and their allies from the mid-1940s until the late 1980s. With the defeat of the Axis powers, international politics, and conditions affecting post-war strategy changed radically. During the late 1940s and early 1950s, the Euro-centric order yielded to a world in which the US and the Soviet Union became two contending blocs representing fundamentally opposed political ideologies, i.e., democracy and communism (Center for Air Force History, 1994). Furthermore, by 1949, the Soviet Union had acquired nuclear capability, toppling the US monopoly on nuclear power and raising the stakes for nuclear war. It was in this tense climate that AFRES sought to establish installations throughout the US, including the City of Milwaukee.

## 2.4 ESTABLISHMENT OF US AIR FORCE RESERVE ACTIVITIES AT GENERAL BILLY MITCHELL FIELD, 1950s

AFRES activated the 924<sup>th</sup> Training Wing at General Billy Mitchell Field in February 1952, one of many reserve units established throughout the US during the Cold War. Unit activities were regularly documented in the base newspaper, *The Flying Badger*, which commenced publication in 1952 and continues through present time (*Flying Badger*, April 1952). The newspaper was named for the badger, the official animal of the State of Wisconsin, known for its ferocity and thus, an appropriate symbol for Milwaukee's AFRES unit. A few months later, the 924<sup>th</sup> Training Wing was re-designated the 438<sup>th</sup> Fighter Bomber Wing, and by 1953, the unit was again re-designated the 2473<sup>rd</sup> Air Force Reserve Training Center (AFRTC). The 2473<sup>rd</sup> AFRTC was assigned multiple aircraft including the T-6 Texan, a trainer aircraft manufactured by North American Aviation; the F-51 Mustang, a fighter aircraft manufactured by North American Aviation; and the F-80 Shooting Star, a fighter aircraft manufactured by Lockheed (2473<sup>rd</sup> AFRTC, January-June 1955).

Initially, 2473<sup>rd</sup> AFRTC operated from facilities leased from Milwaukee County at General Billy Mitchell Field and the former site of the US Army disciplinary barracks at 6081 North 43<sup>rd</sup> Street in Milwaukee. While an old terminal at General Billy Mitchell Field was used for operations and aircraft maintenance, the North 43<sup>rd</sup> Street site was used for the unit's other activities. By 1955, the unit was also sharing space in an old terminal and Midwest Airways hangar at General Billy Mitchell Field with the Wisconsin Air National Guard, a state organization that was established there in 1947 (2473<sup>rd</sup> AFRTC, January–June 1955; <<http://www.wimilw.af.mil/content/history.html>> April 12, 2007).

Leased facilities and shared spaces were seen as impediments to progress by the 2473<sup>rd</sup> AFRTC. In fact, since the late 1940s, individuals and organizations, including the Milwaukee Chapter of the Air Reserve Association, had engaged in lobbying government officials to establish a permanent AFRES installation at General Billy Mitchell Field. In 1949, the local chapter of the Air Reserve Association prepared a comprehensive report on this issue. Employing statistics from the local chamber of commerce, state and federal government, and local businesses, the association argued that:

*“Milwaukee – the 13<sup>th</sup> largest city of the Nation, ranking 10<sup>th</sup> in industrial-economic status – needs an Air Force Reserve Training Center as a future Air Defense base and to provide Air Reserve training facilities comparable to Milwaukee's high ranking position as one of the leading industrial and commercial cities of the nation”* (Milwaukee Chapter-Air Reserve Association, 1949).

To further persuade government officials, the Air Reserve Association argued that the Milwaukee Metropolitan Area already had 5,362 reservists, 2,562 of whom resided in Milwaukee County. In addition, General Billy Mitchell Field had excellent facilities and room for expansion. Constructing such an installation would allow for the “total training” of reserve personnel which could not be achieved without such a facility (Milwaukee Chapter-Air Reserve Association, 1949). Such training was viewed as essential to the nation's defense during the early years of the Cold War.

As a result of such active lobbying that proclaimed “the heart of America's Air-Power Security beats in consonant harmony with the very life of Milwaukee's industries, efforts

and people,” the federal government concurred (Milwaukee Chapter-Air Reserve Association, 1949). Thus, in 1953-54, the 2473<sup>rd</sup> AFRTC began acquiring land at the southwest corner of the General Billy Mitchell Field to establish a home base for operations. The land was situated northeast of the northeast corner of South Howell and East College avenues in the City of Milwaukee. Seventeen parcels and two easements were acquired from private property owners and a small number of investment companies in a section of Milwaukee characterized by detached 19<sup>th</sup> and 20<sup>th</sup> century homes and agricultural land. Buildings of note in the vicinity included the 19th-century Gothic-style St. Stephen’s Church and associated cemetery on the east side of South Howell Avenue, and the Italianate-style New Coeln House on the west side of South Howell Avenue (US Army Corps of Engineers [USACE], Chicago District, December 20, 1954). The parcels encompassed 99.24 acres (440<sup>th</sup> Tactical Airlift Wing [TAW], January-June 1987).

The approximately 100-acre parcel acquired by the 2473<sup>rd</sup> AFRTC was situated west of Runway 1-19R at General Billy Mitchell Field. A lease agreement between Milwaukee County and the federal government enabled AFRES to construct two taxiways from its property to access the runway system at the airport. The taxiways would be constructed in two phases to access the original runway and its future extension (USACE, Chicago District, 1953).

In 1955, the USACE Chicago District sought bids from contractors to construct what was projected to be the \$8 million home of the 2473<sup>rd</sup> AFRTC. During this era, construction projects for the US Air Force and its affiliates were overseen by the USACE, the building and contracting arm of the military. The Milwaukee contracting firm, Joseph D. Bonness, Inc. was the low bidder with its \$2,798,667 bid. The firm was awarded a blanket contract to construct the following buildings and structures:

- Maintenance hangar.
- Shops.
- Taxi strip.
- 80,000 square foot parking apron.
- Warehouse.
- Jet fuel pumping station.
- Storage facilities.
- Roads.
- Water and electrical distribution.
- Storm and sanitation sewers.
- Underground steam line.
- Boiler plant.

Construction commenced in 1955 (Photo 2-1). The contract called for completion of the facilities by October 1956 (2473<sup>rd</sup> AFRTC, January-June 1955).

By the close of 1955, President Dwight D. Eisenhower had signed a \$1.3-million appropriation for the construction of three additional facilities at the 2473<sup>rd</sup> AFRTC, including:

- Administration and training facility.
- Airmen’s dormitory and mess.



**Photo 2-1.** Looking west toward 2473<sup>rd</sup> AFRTC under construction in 1955 at the southwest corner of General Billy Mitchell Field. Note St. Stephen's Church on the east side of South Howell Avenue at the right edge of photo.

- Operations wing of maintenance hangar.

Construction was anticipated to be underway in 1956 (2473<sup>rd</sup> AFRTC, January-June 1955).

## **2.5 US AIR FORCE RESERVE BUILDINGS AND STRUCTURES COMPLETED AT GENERAL BILLY MITCHELL FIELD, 1950s**

Between 1956-59, infrastructure and both permanent and temporary buildings and structures were completed at the new home of the 2473<sup>rd</sup> AFRTC. Infrastructure such as subsurface water mains and sewage mains were installed. Intersecting roads were also built. These included the north/south oriented A Street; B Street, which provided access from the main gate at East College Avenue; C Street; and D Street. East/west streets included 1<sup>st</sup> through 9<sup>th</sup> avenues. A secondary or west gate was located at 1<sup>st</sup> Avenue and provided access to South Howell Avenue.

Permanent buildings included administrative buildings, maintenance buildings, and structures specifically related to the operation of an aviation-related installation. Temporary buildings, such as corrugated metal Butler buildings which were used as warehouses, were also built. Buildings and structures directly related to aircraft operations were erected in the POL Area and within and adjacent to the Ramp Area (Photo 2-2). Table 2-1 provides a list of the extant permanent buildings constructed at the 2473<sup>rd</sup> AFRTC in the 1950s.

The buildings and structures completed in the 1950s were conceived by a variety of architects and engineers employed by the federal government or the private sector. Five of the 11 resources listed in Table 2-1 were designed by the Milwaukee-based design firm Gates Weiss & Kramer, Engineers & Architect as follows:

- Building 102 (Technical Training Building).
- Building 205 (Warehouse).
- Building 217 (Maintenance Hangar).
- Structure 309 (Jet Fuel Storage & Dispensing).
- Building 310 (Jet Fuel Pump House).

According to original plans, the firm worked under contract to the USACE, including the Chicago District and the Milwaukee District. As the building and contracting arm of the military, it was standard operating procedure for the USACE to hire designers for the 2473<sup>rd</sup> AFRTC's new home. (Gates Weiss & Kramer/USACE Gates Weiss & Kramer/USACE Milwaukee District, 1955a; 1955b; 1955c; 1955d; Gates Weiss & Kramer/USACE Chicago District, 1956).

Other architects and designers were also hired by the USACE. These included Lefebvre-Wiggins & Associates (Building 104 [Automotive Maintenance Shop]) and DeLeuw, Cather & Company of Chicago, Illinois (Structure 7101 [Apron] and Structure 7102 [Hangar]) (Lefebvre-Wiggins & Associates/USACE Chicago District; 1959; DeLeuw, Cather & Company/USACE Milwaukee District, 1955).

Table 2-1

1950s-Era Buildings and Structures  
2473<sup>rd</sup> AFRTC  
General Billy Mitchell Field  
Milwaukee, Wisconsin

Resource Number	Original Name	Year of Construction*	Description
Building 102	Technical Training Building	1957	Two-story International-style E-plan brick building
Building 104	Automotive Maintenance Shop	1959	Two-story brick and concrete block building sheathed in stucco panels with high-bay section
Building 120	Booster Pumping Station	1958	Single-story concrete block building
Building 205 (Section A)	Warehouse	1956	Two-story concrete block building sheathed in stucco; one of five sections complete by 1956
Building 217	Maintenance Hangar	1956	Two-and-a-half story corrugated metal-clad hangar with two-story concrete block lean-to structures on east and west facades
Building 300	Pumping Station	1956	Single-story concrete block building sheathed in stucco
Building 301	Reservoir – Ground Storage	1956	Earth-covered reinforced concrete structure
POL Area			
Structure 308	Jet Fuel Storage Tank	1956	Round metal tank in dyke
Structure 309	Jet Fuel Storage & Dispensing	1956	Metal canopy over fuel dispensing system
Building 310	Jet Fuel Pump House	1956	Single-story concrete block building sheathed in stucco
Ramp Area and Taxiway			
Structures 7101 & 7102	Apron (Structure 7101) and one Taxiway (Structures 7102)	1956	Concrete-paved airfield
<p>*Sources: General Mitchell IAP ARS, Real Property Records List, October 10, 2006. 440<sup>th</sup> Airlift Wing Archive Project, CD-ROM with historic aerial photographs on file at Building 102 (440<sup>th</sup> AW Public Affairs Office), General Mitchell IAP ARS.</p>			



**Photo 2-2.** Looking east toward 440<sup>th</sup> TCW installation in 1958. Note Building 102, Section A of Building 205 and Structure 7101 (Apron).

USACE also produced its own designs for selected buildings and structures, including Building 300 (Pumping Station), which was designed by the Milwaukee District (USACE Milwaukee District, 1955). Original plans could not be located for Structure 308 (Jet Fuel Storage Tank); however, drawings from the 1970s indicate that installation personnel prepared designs for the structure at that time (440<sup>th</sup> TAW, September 15, 1975).

Furthermore, as with other AFRES facilities being constructed in the US during the early years of the Cold War, standardized construction was also employed. For example, Building 301 (Reservoir-Ground Storage) was built according to designs provided by the US Army's Office of the Chief Engineer in Washington, DC. Construction of the 500,000 gallon capacity reservoir underscores the importance that AFRES placed on the 2473<sup>rd</sup> AFRTC home (440<sup>th</sup> Troop Carrier Wing [TCW], January-June 1960). Having an independent water supply system, apart from the municipal system, was a strategic choice so that in the event of an emergency, the installation could continue operations, a crucial characteristic for a military installation during the Cold War. (USACE Washington, DC, 1955).

## **2.6 MAJOR EVENTS, 1950s**

Several major events occurred during the 1950s at the AFRES installation, including the activation of units, and the articulation and execution of a mission.

### **2.6.1 Activation of 440<sup>th</sup> Troop Carrier Wing**

Soon after completion of the initial buildings at the AFRES installation, the 2473<sup>rd</sup> AFRTC was deactivated in 1958 and replaced by the 440<sup>th</sup> TCW. The 440<sup>th</sup> TCW was originally constituted as the 440<sup>th</sup> Troop Carrier Group (TCG) in 1943 at Baer Field, Fort Wayne, Indiana during the height of World War II. The unit had four fighting squadrons, all of which participated in the European Theatre of Operations until deactivation in 1945. In 1947, AFRES reactivated the unit as a Reserve Flying Training Group at Minneapolis-St. Paul International Airport in Minnesota. The unit, renamed the 440<sup>th</sup> TCW in 1949, remained in Minnesota until its relocation to General Billy Mitchell Field in Milwaukee (440<sup>th</sup> TCW, July-December 1958).

On August 23-24, 1958, the 440<sup>th</sup> TCW presided over the dedication of its new home, proclaimed to be "the finest Air Force Reserve flying facility in the United States" in the dedication program (440<sup>th</sup> TCW, July-December, 1958)." The same year that AFRES dedicated its new home, it initiated the Air Reserve Technician (ART) program. The goal of ART was to provide a permanent cadre of civilian technicians "ready and available for immediate mobilization in the event of a national emergency" (440<sup>th</sup> TCW, January-June 1959). The ART program was considered the first major step toward a truly ready AFRES because full-time employees at reserve installations would be immediately familiar with a given unit's characteristics and needs in the event of deployment. In addition to the base commander, ART personnel held key positions in several divisions at the installation, including operations and training, reserve personnel, supply, and aircraft maintenance, to name a few (440<sup>th</sup> TCW, January-June 1960).

As a carrier wing, the 440<sup>th</sup> TCW was assigned the Fairchild C-119 Flying Boxcar. The aircraft was developed from the World War II-era Fairchild C-82 Packet, which was designed to carry cargo, personnel, litter patients, and mechanized equipment, and to drop cargo and troops by parachute. The first C-119 made its initial flight in November

1947, and by the time production ceased in 1955, more than 1,100 C-119s had been built. Its cargo hauling ability earned it the nickname "Flying Boxcar" (<<http://www.nationalmuseum.af.mil/factsheets/factsheet.asp?id=790> > June 6, 2007).

## **2.6.2 Mission, 440<sup>th</sup> Troop Carrier Wing Units and Subordinate Units**

Upon being activated, the mission of the 440<sup>th</sup> TCW was to:

*Airlift personnel and/or equipment [and] long range movement by air of Army airborne units, their supplies and equipment and the ability to deliver personnel or equipment by air drop or air landing. The mission also includes air evacuation of the wounded within a theater of operations (440<sup>th</sup> TCW, January-June, 1959).*

To serve its mission, 440<sup>th</sup> TCW included multiple units in Milwaukee:

- 440<sup>th</sup> TCW.
- 440<sup>th</sup> Air Base Group.
- 440<sup>th</sup> Operations Squadron.
- 440<sup>th</sup> Air Police Squadron.
- 440<sup>th</sup> Installation Squadron.
- 440<sup>th</sup> Transportation Squadron.
- 440<sup>th</sup> Supply Squadron.
- 440<sup>th</sup> Consolidated Aircraft Maintenance Squadron.
- 440<sup>th</sup> Tactical Hospital.
- 440<sup>th</sup> Troop Carrier Squadron.
- 95<sup>th</sup> Troop Carrier Squadron (440<sup>th</sup> TCW, January-June 1960).

Subordinate units of the 440<sup>th</sup> TCW included:

- 96<sup>th</sup> Troop Carrier Squadron (Minneapolis-St. Paul International Airport).
- 97<sup>th</sup> Troop Carrier Squadron (Paine Air Force Base, Washington) (440<sup>th</sup> TCW, January-June 1960).

To achieve its mission, the 440<sup>th</sup> TCW held unit training assemblies (UTAs) one weekend per month at its new home or a designated location. Throughout AFRES, UTAs were a common method of training reservists who were, in essence, part-time members of the military whose full-time commitments lay elsewhere. Thus, weekends were chosen as the optimal time to train the reservists. With the 440<sup>th</sup> TCW firmly established at General Billy Mitchell Field, the installation was ready to serve the US in the early years of the Cold War.

## **2.7 US AIR FORCE RESERVE ACTIVITIES AT GENERAL BILLY MITCHELL FIELD, 1960s**

Over the course of the 1960s, improvements continued at the AFRES installation at General Billy Mitchell Field. In addition, the 440<sup>th</sup> TCW continued to fulfill its mission as a strategic supply unit.

### **2.7.1 Physical Improvements**

During the 1960s, major construction projects were undertaken by designers employed by the federal government and the private sector. These projects included buildings that supported aviation activities and US Air Force reservists (Photo 2-3; Photo 2-4). Table 2-2 provides a list of extant 1960s-era buildings and structures at the installation.

Many buildings and structures constructed during this period continued to be designed by the federal government. For example, the USACE Chicago District was responsible for producing designs for Building 110 (CONAC 50-Man Dormitory) and Building 112 (Parachute & Dinghy Shop) (USACE Chicago District, 1961a; 1961b). Other buildings were designed by the private sector. For example, while Building 111 (50-Man Dormitory) is nearly identical to Building 110 (CONAC 50-Man Dormitory), research indicates that it was designed by the Milwaukee architecture firm, Brust & Brust Architects under contract to the USACE Chicago District (Brust & Brust Architects/USACE Chicago District, 1962). Section B and Section C additions to Building 205 (Warehouse) were designed by both the USACE Chicago District and Schutte Phillips Mochon, Inc., Architects, Planners & Engineers of Milwaukee, respectively (USACE Chicago District, 1961c; Schutte Phillips Mochon, Inc./USACE Chicago District, 1962a). Building 212 (Fire & Crash Station) was designed by Lefebvre-Wiggins & Associates, the same designers of Building 104 (Automotive Maintenance Shop) in the 1950s (Lefebvre-Wiggins & Associates/USACE Chicago District, 1959). Design information was not obtained for Building 201 (Hazardous Storage) and Structure 8905 (Wind Direction Indicator). However, these are utilitarian structures commonly located at AFRES installations.

Buildings were also upgraded during the 1960s. For example, in 1962, a single-story kitchen addition was added to the north façade of Building 102 (Technical Training Building) (Gates Weiss & Kramer/USACE Chicago District, 1956). The addition provided an on-site dining location for the installation, a welcome improvement. In 1968, Building 120 (Booster Pumping Station) was converted to function as an aircraft workshop (General Billy Mitchell Field, March 18, 1958). Furthermore, during the 1960s, historic photographs and plans indicate that a second floor was built atop the lean-to structures on the west façade of Building 217 (Maintenance Hangar), augmenting the space of various squadrons that occupied the hangar (Schutte Phillips Mochon, Inc./USACE Chicago District, 1962b).

### **2.7.2 Mission Highlights**

#### **Cuban Missile Crisis**

The 440<sup>th</sup> TCW responded to several crises during the 1960s. The most significant of these was the Cuban Missile Crisis of 1962, a key event in the Cold War. On October 23, 1962, President John F. Kennedy, Commander-in-Chief of the US military ordered the military to establish an air and sea blockade of Cuba in response to surveillance photographs that revealed Soviet missile bases under construction in Cuba. The US threatened to invade Cuba if the bases were not dismantled and warned that a nuclear attack launched from Cuba would be considered a Soviet attack requiring full retaliation (Center for Air Force History, 1994). As a result, on October 28, 1962, the 440<sup>th</sup> TCW was recalled to active duty “for a period of 12 consecutive months unless sooner relieved” (440<sup>th</sup> TCW, July-December 1962). All assigned aircrews returned to the base,

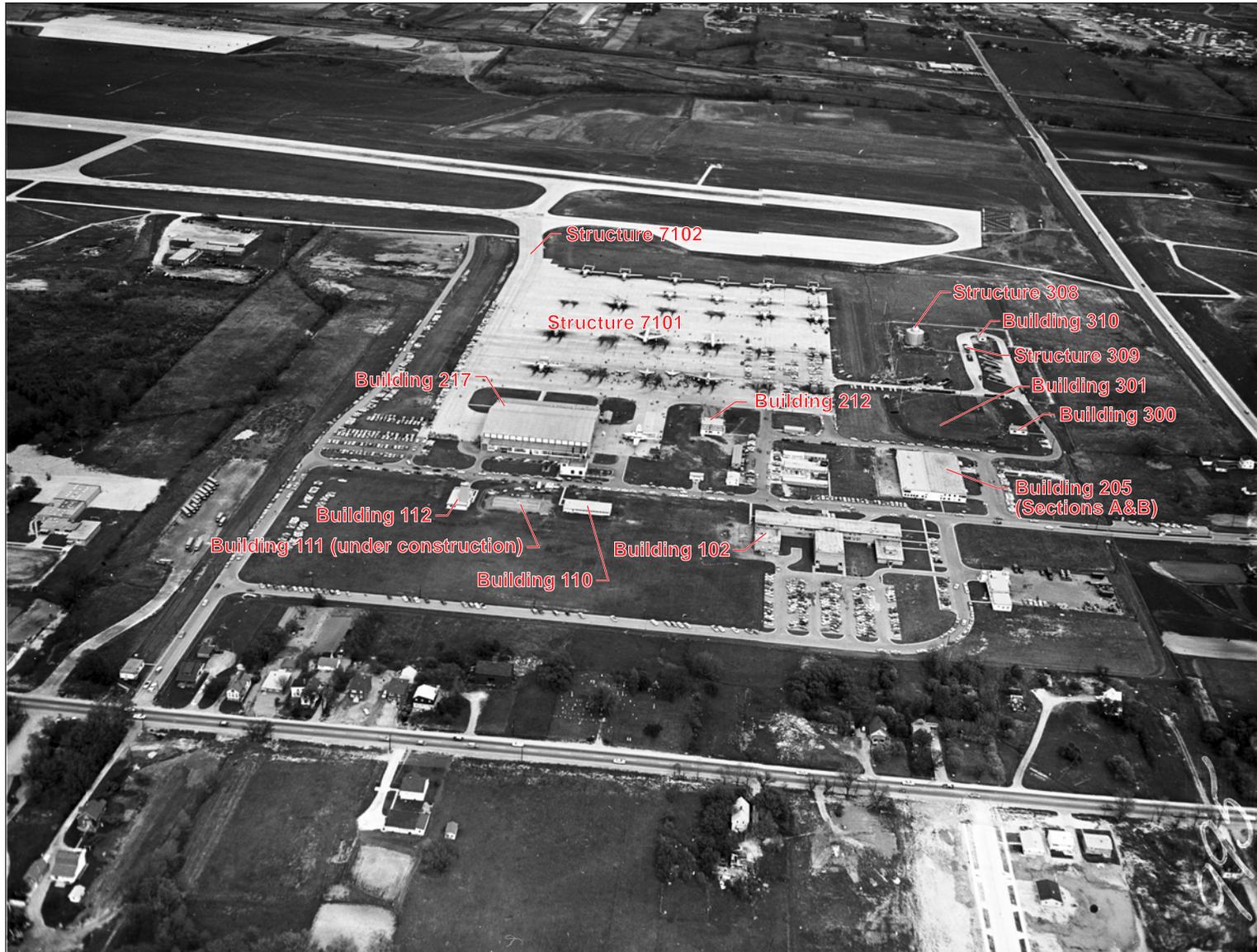
Table 2-2

Extant 1960s-Era Buildings and Structures  
 440<sup>th</sup> TCW  
 General Billy Mitchell Field  
 Milwaukee, Wisconsin

Resource Number	Original Name	Year of Construction*	Description
Building 110	Continental Air Command (CONAC) 50-Man Dormitory	1962	International-style single-story concrete block building sheathed in stucco
Building 111	50-Man Dormitory	1962	International-style single-story concrete block building sheathed in stucco
Building 112	Parachute & Dinghy Shop	1962	Single-story concrete block building with aluminum tower
Building 201	Hazardous Storage	1965	Single-story brick building
Building 205 (Sections B and C)	Warehouse	1961 (Section B) 1962 (Section C)	Two-story stucco-clad concrete block additions to Section A originally completed in 1956
Building 212	Fire & Crash Station	1960	Single-story brick building with high-bay garage
Structure 8905	Wind Direction Indicator	1965	Fabric windsock
*Sources: General Mitchell IAP ARS, Real Property Records List, October 10, 2006. AFRES, 1996.			



**Photo 2-3.** Looking north above the 440<sup>th</sup> TCW installation in 1960. Note Runway 1-19R extension at General Billy Mitchell Field underway.



**Photo 2-4.** Looking north above the 440<sup>th</sup> TCW installation ca. 1962.

ready for duty. The 440<sup>th</sup> TCW's recall was not unique. It was one of many AFRES units called to active duty as units from over a dozen states, including Massachusetts, Utah, Ohio, Alabama, Georgia, Tennessee, Pennsylvania, New York, California, Oregon, Michigan, Oklahoma, Indiana, Illinois, Washington, New Jersey, South Carolina, and Texas. The Cuban Missile Crisis was short-lived. On November 21, 1962, the Department of Defense (DoD) announced easing of relations with Cuba, and on November 28, 1962, the 440<sup>th</sup> TCW was deactivated (440<sup>th</sup> TCW, July-December 1962).

President Kennedy and top US Air Force leaders praised US Air Force Reservists for their immediate assistance during the crisis and their readiness to respond. General Curtis LeMay, US Air Force chief of staff indicated:

*President John F. Kennedy has commended the readiness of the Air Force at this time of crisis. Secretary Zuckert [Secretary of the US Air Force] and I wish to congratulate you and the men in your command for the exemplary manner in which you realized and augmented the combat and support capabilities of our Air Force in being, as well as the prompt civilization of the swiftly mobilized Reserve forces who so efficiently returned to duty. We are certain that you will continue to maintain this increased posture of strength and readiness as long as the need exists (Flying Badger, November 16, 1962).*

A key responsibility of AFRES was readiness to respond. Through the Cuban Missile Crisis, the 440<sup>th</sup> TCW and other units demonstrated their responsiveness through swift activation.

### **Other Exercises**

The wing also has some involvement in the Vietnam War (1963-73). The unit performed airlift operations to the war theater in 1968. As a result, it earned the Republic of Vietnam Gallantry Cross with Palm for its contributions (<<http://www.genmitchell.afrc.af.mil/library/factsheets/factsheet.asp?id=3696>> April 6, 2007).

Tragedy befell the 440<sup>th</sup> TCW in the 1960s as well. On June 6, 1965, a C-119 and its crew of ten airmen was reported lost in the Bermuda Triangle, east of Florida and north of Bermuda in the Atlantic Ocean. The aircraft was carrying maintenance men and material to repair a disabled C-119 which landed at Grand Turk Island because of engine trouble. This was the first loss of life connected with the AFRES installation at General Billy Mitchell Field since its inception in the 1950s (440<sup>th</sup> TCW, January-June 1965).

On the domestic front, the unit responded to crises on US soil. In particular, the unit was tapped to fly both equipment and supplies in its C-119's to Gulfport, Mississippi in response to the devastation wrought by Hurricane Camille when the storm ravaged the Gulf coast in August 1969 (440<sup>th</sup> TCW, July-September 1969).

### **Redefined Mission**

In 1967, the 440<sup>th</sup> TCW was re-designated the 440<sup>th</sup> TAW. The change was made to more accurately reflect the mission of the unit in airlifting troops, supply and re-supply of

troops, and aeromedical evacuation (*Flying Badger*, July 1967). Furthermore, during the 1960s, the actual stated mission of the 440<sup>th</sup> TAW was clarified to distinguish its standard mission from its mobilization, or M-day, mission. Its standard mission was “to achieve, through training the capabilities for air transportation for airborne forces and their equipment and supplies” (440<sup>th</sup> TAW, October-December 1969). Mission objectives included:

- *Long-range movement of personnel, equipment, and supplies, including air evacuation of patients.*
- *Materiel support, including supply services and organizational and field maintenance of assigned aircraft.*
- *Operation and maintenance of base facilities in support of assigned or attached units.*
- *Operation and maintenance of communications facilities and equipment in support of Air Force Reserve flying activities at airport and air-base-type installations.*
- *Medical support to assigned units.*
- *Operation of air terminals for processing personnel and cargo for airlift.*
- *Loadmaster services for aerial delivery of heavy drops (440<sup>th</sup> TAW, October-December 1969).*

It’s M-day mission became necessary to define following activation of the 440<sup>th</sup> TCW in response to the Cuban Missile Crisis in 1962. Thus, on M-day, the 440<sup>th</sup> TAW would be “assigned to the Tactical Air Command [of the US Air Force] and be responsible for providing command and staff supervision for tactical units engaged in:

- *Air transportation and delivery by parachute of airborne forces, their equipment, and supplies.*
- *Re-supply of such forces until they are withdrawn or supplied by other means.*
- *Long-range movement of personnel, equipment, and supplies, including tactical aeromedical evacuation within the theater of operation (440<sup>th</sup> TAW, July-December 1967).*

The dual mission of the 440<sup>th</sup> TAW, both standard and M-day, reflects the specialized role that the unit played within the AFRES organization during the height of the Cold War. As one of many airlift units within the reserve, the 440<sup>th</sup> TAW had to swiftly provide airlift services in times of domestic and international crises and, during the 1960s, the unit proved its importance to the AFRES organization.

### **Changes in 440<sup>th</sup> Tactical Airlift Wing Unit Composition and Subordinate Units**

By the end of the 1960s, the composition of the 440<sup>th</sup> TAW and its subordinate units had changed. Squadrons affiliated with the 440<sup>th</sup> since the 1950s (i.e., the 96<sup>th</sup> and 97<sup>th</sup> Troop Carrier Squadrons that operated out of Minneapolis-St. Paul International Airport and Paine Air Force Base [AFB], Washington, respectively) were deactivated. These units were replaced with the following three subordinate units:

- 914<sup>th</sup> TAW, Niagara Falls, New York.
- 933<sup>rd</sup> Tactical Airlift Group (TAG), Milwaukee, Wisconsin.

- 934<sup>th</sup> TAG, Minneapolis-St. Paul, Minnesota (440<sup>th</sup> TAW, October-December 1969).

Changes in unit composition were common within the AFRES organization and such shifts would continue to occur in the ensuing decades.

### **Accolades**

During the 1960s, the 440<sup>th</sup> TCW and its successor, the 440<sup>th</sup> TAW, distinguished itself as a superior unit. In fact, in 1963-64 and 1966, the 440<sup>th</sup> TCW was named outstanding AFRES unit. In 1968, the 440<sup>th</sup> TAW won the same honor (<<http://www.genmitchell.afrc.af.mil/library/factsheets/factsheet.asp?id=3696>> April 6, 2007).

### **Formation of US Air Force Reserve Command**

On August 1, 1968, the AFRES Command was formed at Robins AFB, Georgia, to oversee the administration of reserve units (440<sup>th</sup> TAW, January-June 1969). Prior to that date, reserve units were overseen by CONAC. The command was established following the *Pueblo crisis* of 1968 when the US Navy research vessel, the *USS Pueblo*, set sail for the Far East to undertake electronic intelligence collection. During its journey, the ship was boarded and captured by North Koreans who claimed it had strayed into their territorial waters (<<http://www.history.navy.mil/photos/sh-usn/usnsh-p/ager2.htm>> June 6, 2007). Many AFRES units were mobilized in response to the crisis and as a result, US Air Force leadership recognized the importance of establishing a command dedicated to AFRES operations. Thus, as of 1968, the 440<sup>th</sup> TAW fell under the AFRES Command.

## **2.8 US AIR FORCE RESERVE ACTIVITIES AT GENERAL BILLY MITCHELL FIELD, 1970s**

During the 1970s, the AFRES installation at General Billy Mitchell Field was slightly improved. In addition, the 440<sup>th</sup> TAW continued to fulfill its airlift mission.

### **2.8.1 Physical Improvements**

As in prior decades, the 440<sup>th</sup> TAW required that additional buildings and structures be erected to enable it to fulfill its mission (Figure 2-1, 440<sup>th</sup> TAW Installation; Photo 2-5). Therefore, a number of buildings and structures were built at this time. Table 2-3 provides a list of the extant major buildings and structures constructed during the 1970s at the installation.

Like the 1950s-60s, the buildings were designed by the federal government and private sector design firms. However, from the 1970s onward, private firms assumed a larger role in the design of new structures at General Billy Mitchell Field, reflecting a national trend of movement away from in-house expertise in favor of reliance upon specialized architecture and engineering firms well-versed in designing military facilities.

Table 2-3  
 1970s-Era Buildings and Structures  
 440<sup>th</sup> TAW  
 General Billy Mitchell Field  
 Milwaukee, Wisconsin

Resource Name	Original Name	Year of Construction*	Description
Building 103	Electrical Power Station Building	1974	Single-story metal shed
Building 106	Maintenance Shop	1975	Single-story brick-and-stucco clad building
Building 107	Dining Hall	1978	Single-story brick building
Building 205, Section D	Warehouse	1972	Two-story concrete block additions to Sections A-C
Building 208	Jet Engine Maintenance Shop	1978	High-bay brick and metal building
Building 218	Non-Destructive Inspection (NDI) Shop	1975	Single-story stucco-clad building
Building 219	Aerospace Ground Equipment Shop	1975	Single-story concrete-block building
Building 302	Fuel Cell Repair Dock	1975	High-bay concrete block and corrugated metal building
Building 303	Petroleum Operations Building	1979	Single-story concrete block building
Taxiway			
Structure 7103	Taxiway	1969-79	Concrete-paved airfield
<p>*Sources: General Mitchell IAP ARS, Real Property Records List, October 10, 2006.            440<sup>th</sup> Airlift Wing Archive Project, CD-ROM with historic aerial photographs on file at Building 102 (440<sup>th</sup> AW Public Affairs Office), General Mitchell IAP ARS.</p>			

# 440<sup>th</sup> Tactical Airlift Wing Installation, 1969

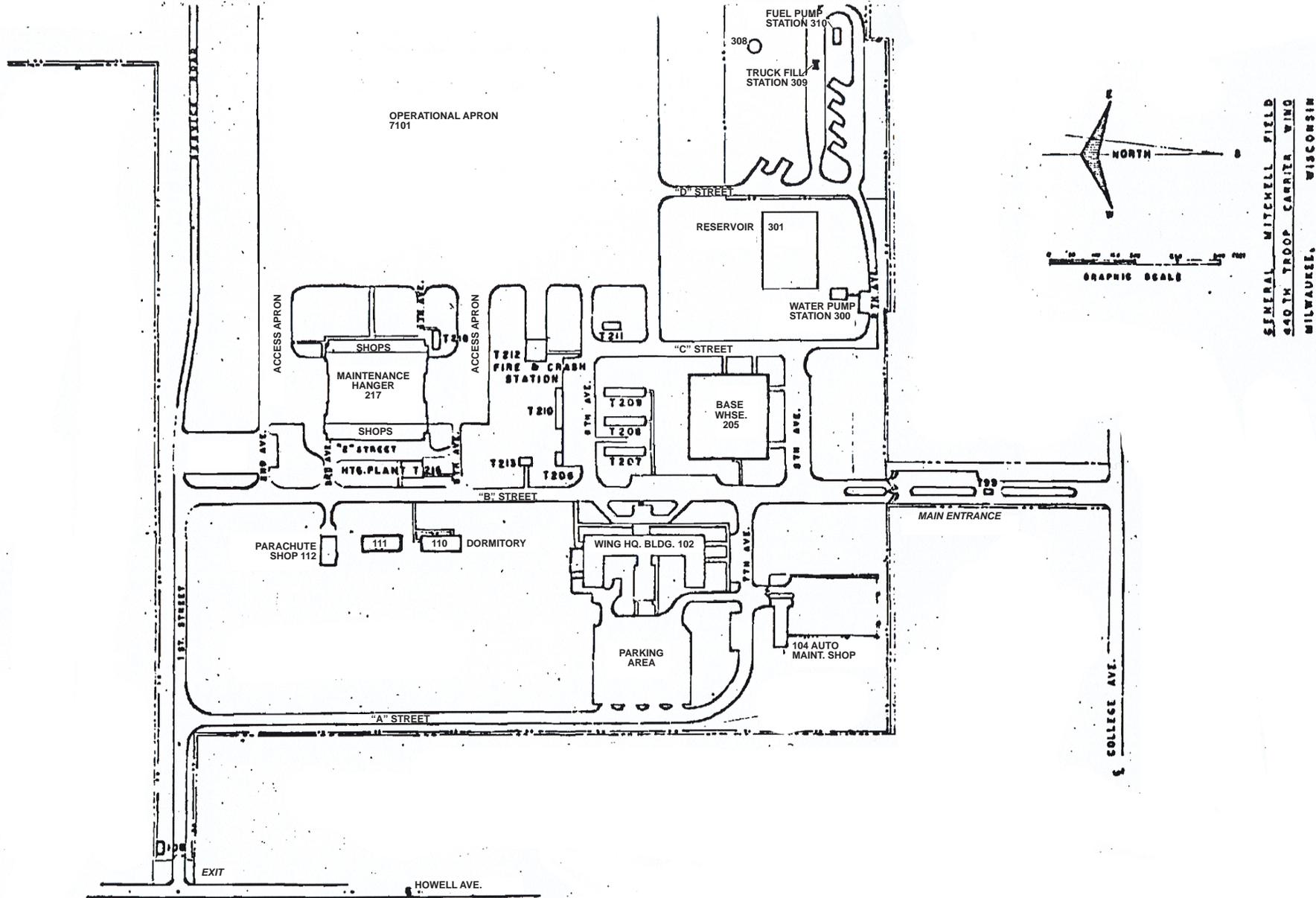
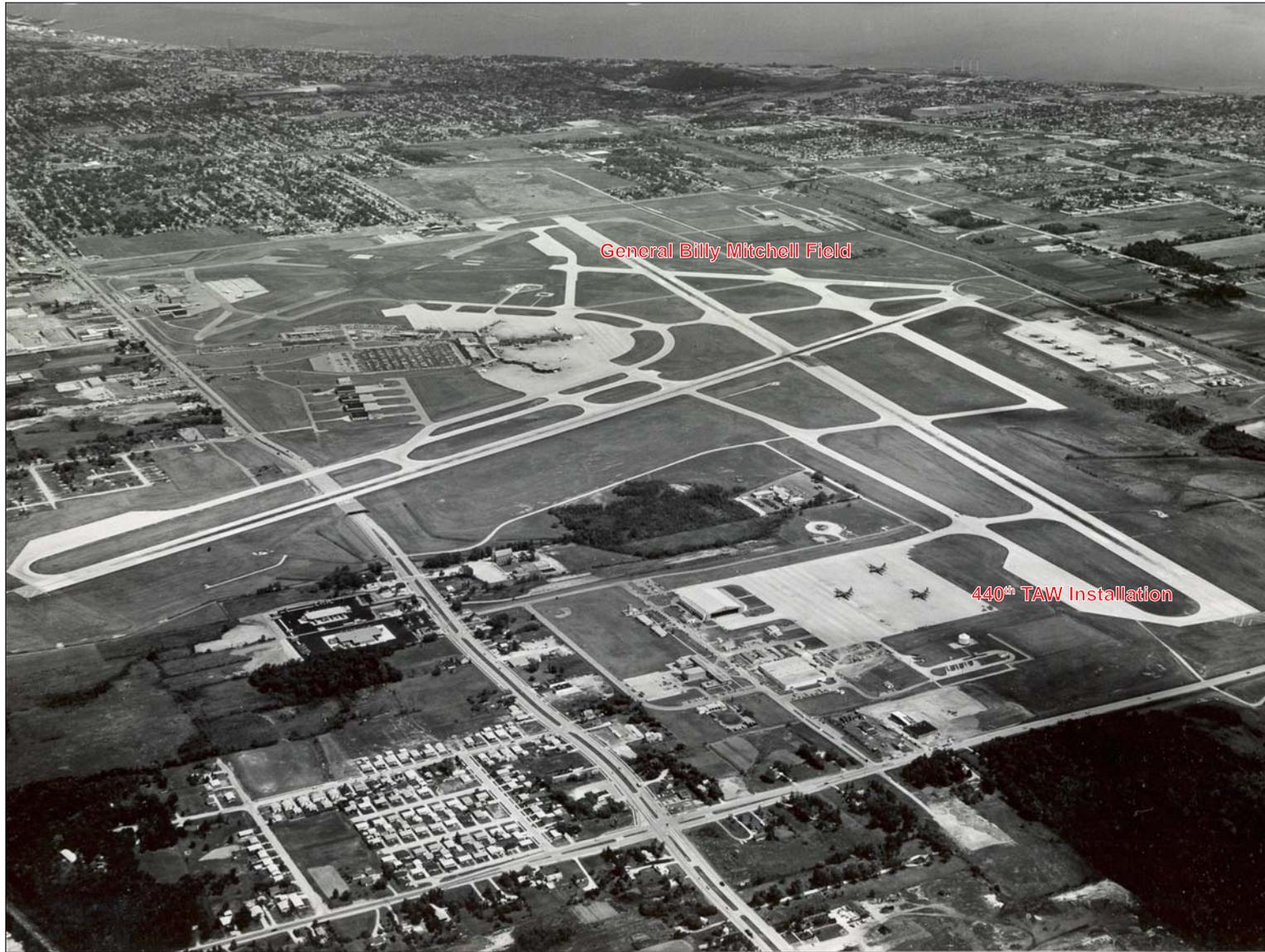


Figure 2-1



**Photo 2-5.** Looking northeast at 440<sup>th</sup> TAW installation in 1973. Note close proximity to General Billy Mitchell Field.

One of the largest buildings constructed during the 1970s was Building 302 (Fuel Cell Repair Dock). It was designed by the Milwaukee-based firm Schutte Mochon, Inc., Architects, Planners & Engineers under contract to the USACE Omaha District (Schutte Mochon, Inc./USACE Omaha District, 1973). Schutte Mochon, Inc. was the successor firm to Schutte Phillips Mochon, Inc., designers of Section C of Building 205 (Warehouse) in 1962. Schutte Mochon, Inc., under contract to the Omaha District, also designed Section D of Building 205 in the 1970s (Schutte Mochon, Inc./USACE Omaha District, 1972).

Major buildings were also upgraded during the 1970s. For example, a three-unit high frequency (HF) antenna array was constructed atop and adjacent to Building 102 to facilitate communication with the airfleet (440<sup>th</sup> TAW, 1974). An addition was also constructed at Building 112 (Parachute & Dinghy Shop). The addition was designed by Milwaukee-based Hamm & Kessler, Inc., under contract to the USACE Omaha District (Hamm & Kessler, Inc./USACE Omaha District, 1975).

Finally, access to the runway network at General Billy Mitchell Field was augmented during this period. According to aerial photos, Structure 7103, a taxiway that extended southeast from the Structure 7101 (Apron) was built to provide additional access to Runway 1-19R. Structure 7103 was located south of the original taxiway, Structure 7102 (Taxiway) (Environmental Data Resources, Inc., October 27, 2006).

## **2.8.2 Mission Highlights**

Over the course of the 1970s, the 440<sup>th</sup> TAW continued to play a vital role in the AFRES organization. In general, its mission remained consistent with prior decades.

### **Tri-Deputy Command Structure**

To better manage the unit, the 440<sup>th</sup> TAW instituted a tri-deputy command structure in the mid-1970s, including an operations command, maintenance command, and resources command (440<sup>th</sup> TAW, October-December 1976). The operations commander was responsible for intelligence; standard evaluation; operations plans; command and control; and operations of the assigned units including the 95<sup>th</sup> Tactical Airlift Squadron and the 928<sup>th</sup> TAG. The maintenance commander oversaw maintenance of aircraft, and the resource commander administered the combat support group.

### **New Aircraft**

The 440<sup>th</sup> TAW's ability to achieve its mission was vastly improved when, in the early 1970s, it was assigned a new aircraft, the Lockheed C-130A Hercules, to replace the Fairchild C-119 Flying Boxcar which the unit had flown since its inception in 1957.

The C-130A was initially produced in 1959 and represented an upgrade to its predecessor, the C-119, which was initially produced in 1947 (<<http://www.af.mil/factsheets/factsheet.asp?fsID=92>> June 6, 2007) The transition to the C-130A aircraft for the 440<sup>th</sup> TAW was part of a larger trend within AFRES airlift units to "modernize equipment to provide greater support for Air Force requirements" (*Flying Badger*, December 1969). The 440<sup>th</sup> TAW was not the first reserve unit to transition to the C-130A. Transition to the newer aircraft began in the late 1960s when the 446<sup>th</sup> TAW at Ellington AFB, Texas was assigned the new aircraft (*Flying Badger*, December 1969).

The major difference between C-119 and the C-130A was in its power plant. While the earlier aircraft had two radial piston engines capable of producing 3,250 horsepower each, its successor had four turboprop motors capable of producing 3,750 horsepower each. Furthermore, while the C-119 was able to travel at a speed of 235 miles per hour (mph), its successor could travel at 300 mph. In addition, the C-130A had improved passenger hauling capacity. While the C-119 was capable of carrying 42 seated troops or 35 litter patients normally, and 62 troops and 14 litter patients in an emergency, the C-130A could carry 92 ground troops or 64 paratroops and 74 litter patients if necessary. Finally, the C-130A could also carry 80 persons on over-water flights (*Flying Badger*, January 1971).

In 1977, the four turboprop motors on the C-130A aircraft operated by the 440<sup>th</sup> TAW and other airlift units were changed from a three-propeller configuration to a four-propeller configuration (*Flying Badger*, July 1977). This design modification resulted in an easier-to-maintain, quieter aircraft that consumed less fuel, and was embraced by 440<sup>th</sup> TAW mechanics.

### **Subordinate Units**

New subordinate units came under the command of the 440<sup>th</sup> TAW during the 1970s. In particular, the 928<sup>th</sup> TAG whose home base was at Chicago-O'Hare International Airport, came under the command of the 440<sup>th</sup> TAW in 1970. The 934<sup>th</sup> TAG and the 914<sup>th</sup> TAW, subordinate units of the 440<sup>th</sup> TAW during the 1960s, were reassigned to other units in the 1970s (440<sup>th</sup> TAW, October-December 1979).

Subordinate units based at General Billy Mitchell Field also engaged in historic events during the 1970s. For example, in 1971, the 933<sup>rd</sup> TAG presented Major Patricia A. Nell with Flight Surgeon Orders and Wings. Major Nell was the first female flight surgeon in US Air Force and AFRES, and she worked in Building 102 at General Billy Mitchell Field (440<sup>th</sup> TAW, October-December 1971).

### **US Air Force Cold War Policy**

Throughout the 1970s, *The Flying Badger*, the 440<sup>th</sup> TAW's base newspaper, published articles concerning the role of the US Air Force in the Cold War. For example, in the early 1970s, the US Air Force articulated its overarching strategy for national defense. Known as the Triad Policy, it was three-pronged strategic combination of weapons, including US Air Force long-range missiles, US Air Force bombers, and US Navy missile-carrying submarines. In terms of long-range missiles, the US Air Force Titan and Minutemen intercontinental ballistic missiles (ICBMs) were placed near targets and could be launched at moment's notice. Manned bombers provided a flexible deterrent force. For example, aircraft could be launched and recalled without penetrating enemy airspace, re-routed enroute, and/or ordered to attack at a moment's notice. ICBMs and bombers, coupled with missile-carrying submarines that moved throughout the seas were seen as a deterrent to potential Soviet attacks launched from land, air or sea (*Flying Badger*, July 1971). Although the 440<sup>th</sup> TAW were not charged with manning ICBMs or bombers, such articles reminded unit members of the important role that they played defending the US from Soviet aggression.

Articles were also carried in *The Flying Badger* that clearly stated the role of AFRES within the US military. In 1970, Secretary of Defense Melvin R. Laird announced that in a

military recall, the initial and primary augmentation would be from the state-managed National Guard and the federal reserve forces, including AFRES. Known as the "Total Force" concept, the National Guard and reserve forces would supply almost 30 percent of the country's military manpower, but cost less than 5 percent of the defense budget. The Total Force was responsible for deterring aggressors and defending the US from attack and would achieve its goals in a lower cost manner in comparison to a larger, more costly full-time force. However, success of the Total Force concept was directly linked to maintaining fully manned and trained National Guard and reserve forces (*Flying Badger*, February 1973).

The importance of the Total Force concept and 440<sup>th</sup> TAW's role was underscored in 1973 when the mandatory draft ended simultaneously with the conclusion of the Vietnam War. With the elimination of the draft, the US transitioned to an all-volunteer military force (Gilmore, June 25, 2003). This shift placed more emphasis on reserve units such as the 440<sup>th</sup> TAW to carry out the military's mission. In fact, the 440<sup>th</sup> TAW and other reserve units would now be in a unique position to demonstrate to the general public the importance of a military comprised of a large percentage of citizen soldiers, i.e., civilians who are members of reserve forces rather than full-time active duty military men.

Concomitant with the implementation of the Total Force concept and the all-volunteer military, concern was expressed by the US Air Force about the shrinking national defense budget. US Air Force statistics indicated that during World War II, defense spending accounted for 40 percent of the gross national product (GNP). During the Vietnam War, the portion had shrunk to 9 percent, and by 1975, it accounted for 6 percent of the GNP. Articles published in *The Flying Badger* in 1975 indicated that the Soviet Union committed 25 percent of its GNP to defense spending. Such articles attempted to provide the 440<sup>th</sup> TAW unit members with policy insights, and remind members of the importance of their role in the conduct of the Cold War and the strength of the enemy (*928<sup>th</sup> Air Carrier*, March 1975).

In 1978, AFRES completed its first decade of service. Between 1968-78, AFRES played a major role in implementing the Total Force concept. As noted above, the Total Force concept envisioned AFRES as a first-line member of the defense team, trained and equipped with up-to-date equipment. Upon its 10<sup>th</sup> anniversary, AFRES mission was two-fold: 1) train for mobilization; and 2) provide support to the active force (*Flying Badger*, September 1978). By 1978, AFRES had reached a major milestone when it surpassed its manning goal of 53,883 reservists, including members of the 440<sup>th</sup> TAW. By that year, AFRES had 53 flying units with 17 different weapons systems at 37 locations throughout the US, including the 440<sup>th</sup> TAW at General Billy Mitchell Field (*Flying Badger*, March 1979).

### **Training and Missions**

Despite a shrinking defense budget, the 440<sup>th</sup> TAW and other airlift wings received funding to improve their bases. As noted in subchapter 2.8.1, the 440<sup>th</sup> TAW and its subordinate unit, the 928<sup>th</sup> TAG at Chicago-O'Hare International Airport, were able to construct fuel cell repair docks (Building 302 at General Billy Mitchell Field). Other major projects completed at General Billy Mitchell Field in the 1970s included Building 218 (Non-Destructive Inspection [NDI] Shop), Building 219 (Aerospace Ground Equipment Shop), and Building 208 (Jet Engine Maintenance Shop) (*928<sup>th</sup> Air Carrier*, April 1975; AFRES, 1996). The cash infusion at these installations indicated that AFRES placed a

premium on its airlift mission during challenging financial times for the military. In addition, provision of state-of-the-art facilities assisted the units in achieving operational readiness in the event of mobilization.

To prepare for its increasingly important role in an all-volunteer military, the 440<sup>th</sup> TAW regularly engaged in training exercises throughout the 1970s that emphasized its ability to mobilize in times of emergency. As in prior decades, the unit engaged in monthly weekend UTAs that enabled its members to hone their expertise in a variety of fields related to the unit's airlift mission. These included:

- Parachuting men and supplies into specified drop zones.
- Aircraft maintenance.
- Aerial port techniques (i.e., packing of supplies and equipment in C-130A aircraft).
- Tactical hospital training.
- Civil engineering training (i.e., rapid site construction).
- Flight communications.

Training missions were also held in variety of locations, including regions characterized by extreme heat and extreme cold (Alaska) which served to acclimate unit members to a variety of conditions and topography that they could encounter upon being recalled (440<sup>th</sup> TAW, October-December 1979).

In addition to training, the 440<sup>th</sup> TAW participated in both domestic and foreign missions in the 1970s. For example, in 1978, the 440<sup>th</sup> TAW flew more than 145 tons of equipment and supplies to the northeast in response to an east coast blizzard that brought the region, including major cities in New England, to a stand-still (440<sup>th</sup> TAW, January-March 1978). On the foreign front, in 1979, the 440<sup>th</sup> TAW joined other AFRES and National Guard units in undertaking Operation Volant Oak. For this multi-year mission which would continue through the 1980s, unit members traveled to Panama for up to three-week assignments in support of US Southern Command. The US Southern Command is a joint command comprised of military and civilian personnel representing the US Army, US Navy, US Air Force, Marine Corps, Coast Guard, and other federal agencies responsible for contingency planning, operations, and security cooperation for Central and South America, the Caribbean, Cuba and the Bahamas, and ensuring the defense of the Panama Canal and canal area, among other tasks. (<<http://www.southcom.mil/AppsSC/pages/about.php>> April 5, 2007) The 440<sup>th</sup> TAW's involvement in Operation Volant Oak exposed the unit to the US military's role in Panama, a country not engaged in the Cold War.

## **2.9 US AIR FORCE RESERVE ACTIVITIES AT GENERAL BILLY MITCHELL FIELD, 1980s**

During the final decade of the Cold War, the AFRES installation at General Billy Mitchell Field was slightly improved. In addition, the 440<sup>th</sup> TAW continued to fulfill its airlift mission.

## 2.9.1 Physical Improvements

As the 440<sup>th</sup> TAW entered the 1980s, the installation was slightly expanded for clear zone purposes. In 1989, the federal government acquired 1.9 acres contiguous to the southern boundary fence line of General Billy Mitchell Field, resulting in a 102-acre installation (USACE Omaha District, March 9, 1989).

During the 1980s, the installation also continued to be developed with buildings and structures that enabled the unit to carry out its mission. Table 2-4 provides a list of the extant major resources built during this period.

Table 2-4

1980s-Era Buildings and Structures  
440<sup>th</sup> TAW  
General Billy Mitchell Field  
Milwaukee, Wisconsin

Resource Name	Original Name	Year of Construction*	Description
Building 113	Squadron Operations	1982	Single-story building
Building 114	Base Exchange	1985	High-bay concrete block building
Building 115	Gymnasium	1983	High-bay building with racquetball court
Building 200	Squadron Operations	1986	Single-story brick building
Building 205, Section E	Warehouse	1983	Single-story stucco-clad concrete block building
Building 209	Squadron Operations	1988	Single-story brick building
Source: General Mitchell IAP ARS, Real Property Records List, October 10, 2006.			

The majority of buildings constructed during the 1980s were designed by private sector firms. Based on original plans, the private firms worked under contract to the USACE Omaha District. For example, the Section E addition to Building 205 (Warehouse) accommodated weapons storage and was designed by Threshold Design, Inc., of Pewaukee, Wisconsin (Threshold Design, Inc./USACE Omaha District, 1983). In addition, many firms appeared to work directly under contract to the 440<sup>th</sup> TAW, and in some cases, the 440<sup>th</sup> TAW base civil engineers prepared designs.

Many buildings constructed in prior decades were also expanded during the 1980s. For example, in 1986, Wilson/Jenkins Associates of Itasca, Illinois was hired by the USACE Omaha District to design an addition to Building 104 (Automotive Maintenance Shop) (Wilson/Jenkins Associates/USACE Omaha District, 1986). Furthermore, Building 212 (Fire & Crash Station) was augmented in 1981 by the Durrant Group, Architects & Engineers of Madison, Wisconsin under contract to USACE Omaha District, and subsequently in 1984 by Threshold Design, Inc. Building 212 (Fire & Crash Station) was also upgraded in 1989 by the 440<sup>th</sup> TAW.

During this period, the POL Area was also upgraded. Around 1983, Structure 308 (Jet Fuel Storage Tank) was modified. Specifically, the original tank with the Horton Dome and its surrounding dike were rebuilt according to designs developed by the USACE Omaha District (USACE Omaha District, 1983).

Uses of some buildings were also converted during this period. For example, in the early 1980s, Building 111 (50-Man Dormitory) was converted into the Consolidated Club (440<sup>th</sup> TAW, 1982). Presumably, Building 110 (50-Man Dormitory) was also converted for other uses around the same time because 440<sup>th</sup> TAW histories indicated that by 1986, "military quarters or family housing was not available" (440<sup>th</sup> TAW, January-June 1986; Lavey, pers. comm., April 30, 2007).

Building 300 (Pumping Station) and Building 301 (Reservoir-Ground Storage) were also altered for training purposes. Until the mid-1980s, the 440<sup>th</sup> TAW at General Billy Mitchell Field lacked a rifle range and was forced to take target practice elsewhere. However, in 1983, plans were prepared to convert Building 301 into the Small Arms Range. Threshold Design, Inc., designers of the Section E addition to Building 205 (Warehouse) and Building 212 (Fire & Crash Station), was hired to prepare designs to convert the reservoir into a rifle range (Threshold Design, Inc., 1983). Alterations were completed in 1985 when Building 301 (Indoor Small Arms Range), reopened to serve its new function (General Mitchell IAP ARS, October 10, 2006). Conversion of the reservoir into a training building rendered the original pumping station function of Building 300 useless. As a result, during the 1980s, Building 300 was converted into a classroom known as Reserve Forces General Training S (General Mitchell IAP ARS, October 10, 2006). With the successful completion of this project, the installation would no longer be able to maintain an independent water supply in the event of an emergency.

## **2.9.2 Mission Highlights**

Over the course of the 1980s, the mission of the 440<sup>th</sup> TAW remained consistent with its overarching mission since the 1960s "to achieve through training the capabilities for air transport of airborne forces and their equipment and supplies" (440<sup>th</sup> TAW, January-March 1980). Training objectives also remained consistent since the 1960s.

### **440<sup>th</sup> Tactical Airlift Wing Units**

During the 1980s, the 440<sup>th</sup> TAW consisted of the following 12 units based at General Billy Mitchell Field:

- 440<sup>th</sup> Combat Support Group.
- 440<sup>th</sup> Headquarters Squadron.
- 95<sup>th</sup> Tactical Airlift Squadron.
- 440<sup>th</sup> Consolidated Aircraft Maintenance Squadron.
- 440<sup>th</sup> Tactical Hospital.
- 34<sup>th</sup> Mobility Aerial Port Squadron.
- 95<sup>th</sup> Aerial Port Flight.
- 440<sup>th</sup> Mobility Support Flight.
- 440<sup>th</sup> Communications Squadron.
- 440<sup>th</sup> Airlift Control Flight.
- 440<sup>th</sup> Civil Engineering Squadron (440<sup>th</sup> TAW, July-December 1989).

Since the late 1950s, the names of many of the units based at General Billy Mitchell Field had changed to reflect each unit's increasingly specialized missions.

### **Subordinate Units**

In addition to these changes, subordinate units attached to the 440<sup>th</sup> TAW continued to fluctuate. While the 928<sup>th</sup> TAG based at Chicago-O'Hare International Airport remained under the 440<sup>th</sup> TAW throughout the 1980s, new units in Missouri and Michigan came under the wing's command such as:

- 927<sup>th</sup> TAG at Selfridge Air National Guard Base, Michigan .
- 77<sup>th</sup> Mobility Aerial Port Squadron, Richards-Gebauer AFB, Missouri.
- 78<sup>th</sup> Mobility Aerial Port Squadron, Richards-Gebauer AFB, Missouri.
- 36<sup>th</sup> Aero-Medical Evacuation Flight, Richards-Gebauer AFB, Missouri (440<sup>th</sup> TAW, July-December 1989).

Shifting assigned units was standard practice for AFRES, a fluid organization that was constantly required to respond to changing demands.

In addition to unit changes, formal designations were also changed during the 1980s. In 1986, the installation's name was changed from General Billy Mitchell Field to General Mitchell IAP, evidently reflecting the fact that Milwaukee's airport now offered international flights (440<sup>th</sup> TAW, June-December 1987). Eventually, the home of the 440<sup>th</sup> TAW came to be known as General Mitchell IAP ARS.

### **Training and Operations**

Over the course of the 1980s, the 440<sup>th</sup> TAW continued training to achieve a state of operational readiness in the event of mobilization. To meet these goals, UTAs were held once a month at General Mitchell IAP or elsewhere. Training missions were also held at active bases in the US, including Alaska, which proved to be a useful region to test the capabilities of the 440<sup>th</sup> TAW in unfamiliar terrain (440<sup>th</sup> TAW, June-December 1987). Airlift skills were also honed at events such as Volant Rodeo, an annual international competition sponsored by the US Air Force that tested a wing's abilities in aircrew, maintenance, weapons systems security, and engines. The 440<sup>th</sup> TAW were often highly rated in such competitions (440<sup>th</sup> TAW, January-June 1986).

Furthermore, building upon trends that commenced in the 1970s, members of the 440<sup>th</sup> TAW continued global operations. For example, in the 1980s, the 440<sup>th</sup> TAW participated in multiple operations abroad. In 1982, it participated in Autumn Forge overseen by the North Atlantic Treaty Organization (NATO). NATO is a military alliance established by the signing of the North Atlantic Treaty in 1949 during the early years of the Cold War. By the 1980s, key members included the US and Western European nations who had joined together to establish a system of collective security whereby its member nations agree to mutual defense in response to an attack by any external party (NATO, October 16, 2006). Based at Chievres Air Base, Belgium, the NATO exercise mainly consisted of transporting troops to forward locations in Germany for which the 440<sup>th</sup> TAW provided airlift capability (440<sup>th</sup> TAW, July-December 1982). Similarly, the 440<sup>th</sup> TAW also participated in the US European Command's annual Reforger exercise. The goal of the exercise was to test the ability of US forces in Europe to reinforce units deployed

throughout central Europe. The 440<sup>th</sup> TAW provided airlift assistance for this exercise which occurred on a regular basis (440<sup>th</sup> TAW, January-June 1985).

The 440<sup>th</sup> TAW continued to participate in Volant Oak in which it had been a key participant since the 1970s. However, in 1985, tragedy struck the 440<sup>th</sup> TAW when a C-130A crashed in the Caribbean Sea off the northern coast of Honduras while trying to land at Trujillo Air Base on a routine airlift mission. Twenty-one perished in the crash, including a seven-man crew and 14 passengers (440<sup>th</sup> TAW, January-June 1985). In response to the crash, members of the 440<sup>th</sup> TAW chose to erect a memorial at General Mitchell IAP ARS. The memorial, dedicated in 1985, was a restored Lockheed T-33 Shooting Star trainer similar to the type of aircraft that the 440<sup>th</sup> TAW flew prior to its re-designation as an airlift unit in the 1950s. The T-33 was mounted as a static display at the southeast corner of Building 102 (Technical Training Building) and was dedicated to unit members who perished in Honduras in 1985, and unit members who perished near Bermuda twenty years earlier in 1965 (*Flying Badger*, December 1985).

The 440<sup>th</sup> TAW also continued its humanitarian missions during the 1980s. In 1983, the 440<sup>th</sup> TAW responded to a disastrous earthquake in Popayan, Columbia by airlifting supplies and equipment to the stricken area. In 1985, the 440<sup>th</sup> TAW responded to a disaster at General Mitchell IAP. A Midwest Airlines Express DC-9 crashed a short distance from the 440<sup>th</sup> TAW installation, and 440<sup>th</sup> TAW personnel were the first responders on the scene. Tragically, no one survived the crash (440<sup>th</sup> TAW, July-December 1985). In addition, in 1986, the 440<sup>th</sup> TAW participated in Volant Banner which included airlifting 27 tons of hay to the drought-stricken southeast (440<sup>th</sup> TAW, June-December 1987). The 440<sup>th</sup> TAW was recognized for its efforts during the 1980s. Specifically, in 1987, it won the US Air Force Outstanding Unit Award for the period from October 1985-September 1987 (<<http://www.genmitchell.afrc.af.mil/library/factsheets/factsheet.asp?id=3696>> April 6, 2007).

During the 1980s, the 440<sup>th</sup> TAW also had to continue to prove its importance in light of a shrinking defense budget. Like the 1970s, AFRES provided just under 30 percent of the US Air Force's capability to airlift personnel and supplies to danger zones (440<sup>th</sup> TAW, July-December 1985). Hence, units such as the 440<sup>th</sup> TAW enabled the US Air Force to maintain a smaller number of regular troops while maintaining its airlift capability. Thus, throughout the 1980s, the 440<sup>th</sup> TAW had to continually demonstrate that it provided cost-effective augmentation of the airlift capability of the US Air Force (440<sup>th</sup> TAW, July-December 1985).

### **New Aircraft**

The 440<sup>th</sup> TAW and other airlift units, including the 928<sup>th</sup> TAG at Chicago-O'Hare International Airport, were poised to end the 1980s on an encouraging note. The federal 1988 Defense Authorization bill included funding provisions to upgrade the C-130A aircraft that airlift units had been flying since the 1970s with brand new C-130H aircraft. The 440<sup>th</sup> TAW received \$150 million to purchase eight C-130H aircraft and by 1989, the first C-130H dubbed the *Spirit of Wisconsin*, arrived at General Mitchell IAP ARS, thereby enabling the 440<sup>th</sup> TAW to enter the 1990s with state-of-the-art equipment (*Flying Badger*, March 1989).

Soon after C-130H aircraft began arriving at the 440<sup>th</sup> TAW installation, the Cold War came to an end. The stage for this historic event had been set in the mid-1980s when

Mikhail Gorbachev was appointed Soviet General Secretary in 1985, and over the ensuing years, entered into negotiations with the US concerning nuclear arms reduction. By 1988, Gorbachev had instituted *Glasnost* policies in the Soviet Union which attempted to relax the grip of the Communist party on society. By the late 1980s, both countries agreed to reduce their nuclear arsenals, and coupled with *Glasnost*, Eastern European nations began to leave the Soviet bloc. By 1989, the Berlin Wall was opened, signaling an end to the Cold War. In 1991, President George Bush and Secretary Gorbachev signed a treaty pledging to destroy nuclear weapons, thereby melting hostilities that had existed between these two powerful nations since the end of World War II (Center for Air Force History, 1994). As a result of these actions, the US military, including AFRES, entered a new era where its role would be redefined.

## **2.10 US AIR FORCE RESERVE ACTIVITIES, GENERAL MITCHELL INTERNATIONAL AIRPORT AIR RESERVE STATION, 1990s-PRESENT**

Between the 1990s-present, the 440<sup>th</sup> TAW, renamed the 440<sup>th</sup> Airlift Wing (AW) between 1991-92, continued to fulfill its airlift mission in a world transformed by the conclusion of the Cold War and the emergence of alternative defense priorities (440<sup>th</sup> AW, July 1991-June 1992).

### **2.10.1 Physical Improvements**

Despite shifting priorities in national defense, General Mitchell IAP ARS continued to be improved during the 1990s. During this time, over 50 buildings and structures were erected at the installation. These included storage facilities; general training facilities; electrical buildings; a traffic check house; recruiting processing building; and a base personnel office. Many aircraft-related structures were also erected during this period, including liquid oxygen (LOX) storage facilities; aircraft engine test stand; and fire training facilities, including a steel mock-up of an aircraft fuselage. Furthermore, between the 1990s-2000s, Structure 7201, an open storage area for container express (CONEX) boxes, was also constructed at the east end of East 7<sup>th</sup> Avenue according to aerial photos (Environmental Data Resources, Inc., October 27, 2006; Air Force Center for Environmental Excellence, February 2007).

One of the largest buildings constructed during the 1990s was Building 222 (Aircraft Maintenance Shop), situated northeast of Building 217 (Maintenance Hangar) (General Mitchell IAP ARS, October 10, 2006). Buildings were also expanded during this period, including Building 104 (Automotive Maintenance Shop) (Foth & VanDyke/USACE Omaha District, 1993) and Building 217 whose doors were replaced in-kind (Foth & VanDyke, 1992).

Buildings and structures were also modified during the 1990s. Structure 309 (Jet Fuel Fill Stand, Truck) was modified and upgraded in 1997 (GEC Design Group, 1997). Building 120 (Civil Engineering Storage Facility), reverted to its original water pumping function as was designated the Fire Protection Pump House (Mangold, pers. comm., April 30, 2007).

Memorials were erected during the 1990s as well. Specifically, around 1998, Heritage Park, featuring a mounted C-119 Flying Boxcar, the original aircraft assigned to the 440<sup>th</sup> TCW in the 1950s, was established at the northwest corner of the installation near the South Howell Avenue gate. At the East College Avenue Gate, a McDonnell Douglas F-4

Phantom aircraft was mounted to honor Milwaukee native, Captain Lance P. Sijan, a US Air Force pilot who was shot down in 1968 while flying his F-4 over North Vietnam during the Vietnam War (<<http://www.mishalov.com/Sijan.html>> April 17, 2007).

In the early 2000s, approximately 15 buildings and structures were erected. While some of the buildings served utilitarian functions, such as an electrical power station, others included warehouses, maintenance shops, and training facilities. Taxiways were also altered during the 2000s. Structure 7103, a taxiway that extended southeast from the Structure 7101 (Apron) to Runway 1-19R, was removed and replaced with a taxiway that extended straight east from the apron to the runway. Furthermore, following the September 11, 2001 attacks on the US, the installation augmented its security facilities by constructing additional traffic check houses. Disaster preparedness and special operations buildings were also constructed during this period, reflecting the national emphasis on anti-terrorist measures (General Mitchell IAP ARS, October 10, 2006). As in prior decades, the majority of buildings and structures constructed during the 1990s-2000s were designed by private sector firms working under contract to the federal government (Photo 2-6).

### **2.10.2 Mission Highlights**

In the early 1990s, the mission of the 440<sup>th</sup> AW remained consistent with its mission in prior decades. Subordinate units attached to the wing remained intact but this would change over the course of the decade. Soon after the fall of the Berlin Wall, national defense priorities began to change as the world hoped to enter a period of prolonged peace. In 1990, the DoD proposed a 25 percent reduction in the US military structure, including both active-duty and reserve service members. AFRES projected a reduction of 15,900 reservists by fiscal year 1995 (Cernohous, August 1990). In 1994-95, the 440<sup>th</sup> AW prepared a defense of the unit before the US Congress and the Defense Base Closure and Realignment Commission, also known as the BRAC commission, which was formed pursuant to DBCRA of 1990. By the fall of 1995, the BRAC commission decided to retain General Mitchell IAP ARS and deactivate other installations, including the 928<sup>th</sup> TAG headquartered at Chicago-O'Hare International Airport (Golden, October 1995).

By the late 1990s, the 440<sup>th</sup> AW primarily consisted of units based at General Mitchell IAP ARS (440<sup>th</sup> TAW, July 1991-June 1992; 440<sup>th</sup> AW, October 1999-September 2000). Furthermore, the mission of the 440<sup>th</sup> AW was streamlined to include both a mission and a vision. While the mission was "to train for and support the accomplishment of humanitarian, contingency, and combat airlift operations into the 21<sup>st</sup> century," the vision was "dedicated to building upon our [440<sup>th</sup> AW] proud traditions and heritage as a world-recognized leader in airlift and support operations" (440<sup>th</sup> AW, October 1999-September 2000). In 1997, the US Air Force Tactical Air Command, the gaining command of the 440<sup>th</sup> AW, was abolished and replaced with the Air Mobility Command. Henceforth, operations of the unit would take place under this new command (<<http://www.genmitchell.afrc.af.mil/library/factsheets/factsheet.asp?id=3696>> April 6, 2007).

The 440<sup>th</sup> AW engaged in multiple operations during the 1990s to fulfill its mission. For example, elements of the 440<sup>th</sup> AW participated in Operation Desert Shield in 1990 and Operation Desert Storm in Iraq in 1991. The 440<sup>th</sup> AW also responded to crises in the Caribbean, Central America, and Eastern Europe. For example, in 1994-95, the 440<sup>th</sup>



**Photo 2-6.** Looking southeast at 440<sup>th</sup> AW installation in 2006. Multiple buildings and structures were constructed between the 1970-2000s.

Source: General Mitchell IAP ARS 440<sup>th</sup> AW Archive Project.

AW participated in Operation Uphold Democracy (Haiti) and Operation Safe Borders (Honduras). In 1993, and 1995-96, the 440<sup>th</sup> AW participated in operations in the Balkans. During this period, the wing also provided assistance in Bosnia, and in 1999, traveled to Kosovo as part of Operation Shining Hope. For its performance during the 1990s, the 440<sup>th</sup> AW garnered honors from the US Air Force when it was selected to receive the Outstanding Air Force Unit Award for the period for 1992-93 and 1997-98 (<<http://www.genmitchell.afrc.af.mil/library/factsheets/factsheet.asp?id=3696>> April 6, 2007).

The 440<sup>th</sup> AW was also prompted into action following the September 11, 2001 attacks on the US. Units traveled to Afghanistan and Guantanamo Bay, Cuba to assist with anti-terrorism efforts. Most recently, members of the 440<sup>th</sup> AW have been deployed to the Middle East and have supported Operations Noble Eagle, Enduring Freedom and Iraqi Freedom, (<<http://www.genmitchell.afrc.af.mil/library/factsheets/factsheet.asp?id=3696>> April 6, 2007).

### **Closure of General Mitchell International Airport Air Reserve Station**

Pursuant to the DBCRA of 1990, the DoD continued to study realignment and reduction of military forces in the 2000s. In 2005, the BRAC commission reviewed the Secretary of Defense's base closure and realignment recommendations and forwarded its recommended list to President George W. Bush. President Bush accepted the recommendations and submitted them to the US Congress. Since Congress did not disapprove the recommendations in the period allotted under DBCRA, the recommendations became law in November 2005. As a result, the 440<sup>th</sup> AW will be transferred to Pope AFB, North Carolina by August 2007. General Mitchell IAP ARS is scheduled to close in February 2008, after which point, the Air Force Real Property Agency in Washington, DC will handle transfer of the property out of federal hands (Mehring, August 8, 2006; Guenther, pers. comm., March 15, 2007).

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### **3 RESEARCH DESIGN AND SURVEY METHODS**

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This Historic Building Inventory and Evaluation Report has been prepared by AFCEE in compliance with their obligations under Section 106 of NHPA, as amended, and other environmental and historic preservation regulations in conjunction with the disposal and reuse of General Mitchell IAP ARS. The primary goal of this report is to determine whether National Register-listed and eligible historic architectural resources are located within or immediately adjacent to the APE.

Sources used in the preparation of the Historic Building Inventory and Evaluation Report included local and regional histories, command histories, site reports, periodicals, newspapers, books, maps, plans, and photographs. Repositories consulted at General Mitchell IAP ARS included:

- 440<sup>th</sup> AW Public Affairs Office, Building 102.
- 440<sup>th</sup> AW Executive Officer, Building 102.
- 440<sup>th</sup> AW Architectural Drawings Collection, Building 106.
- 440<sup>th</sup> AW Real Property Records, Building 106.

Wisconsin repositories were also consulted, including:

- WHS DHP/PH, Madison, Wisconsin.
- Milwaukee Public Library, Milwaukee, Wisconsin.
- Milwaukee Historic Preservation Commission, Milwaukee, Wisconsin.

In addition, individuals familiar with the history of General Mitchell IAP ARS, including members of the 440<sup>th</sup> AW and civilians employed at the installation, were interviewed on site and via telephone.

#### **3.1 GENERAL METHODOLOGY**

##### **3.1.1 Federal Guidelines**

According to National Park Service guidelines, historic buildings, structures, sites, objects and districts that are over 50 years old are eligible for listing in the National Register if they possess historic significance as defined by National Register criteria and possess architectural integrity. Table 3-1 defines National Register criteria and Table 3-2 presents guidelines for architectural integrity. Federal guidelines are promulgated in *National Register Bulletin 24: Guidelines for Local Surveys* (US DOI, 1985). WHS DHP/PH guidelines are based on National Park Service guidelines. These guidelines are promulgated in the WHS DHP/PH Survey Manual (WHS DHP/PH, nd).

Table 3-1

Criteria for Historic Significance

36 CFR 60.4, Part I
<p>The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:</p> <ul style="list-style-type: none"> <li>A. That are associated with events that have made a significant contribution to the broad patterns of our history; or</li> <li>B. That are associated with the lives of persons significant in our past; or</li> <li>C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or</li> <li>D. That have yielded, or may be likely to yield, information important in prehistory or history.</li> </ul>
36 CFR 60.4, Part II
<p>Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:</p> <ul style="list-style-type: none"> <li>A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or</li> <li>B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or</li> <li>C. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or</li> <li>D. A cemetery which derives its primary significance from graves or persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or</li> <li>E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or</li> <li>F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or</li> <li>G. A property achieving significance within the past 50 years if it is of exceptional importance.</li> </ul>

Table 3-2  
Integrity Aspects Defined

Aspect of Integrity	Property Attributes
Location	Must not have been moved.
Design	Must retain historic elements that create the form, plan, space, structure, and style of the property.
Setting	Setting must retain its historic character.
Materials	Must retain the key exterior materials dating from the period of its historic significance.
Workmanship	Methods of construction from its time of significance must be evident.
Feeling	Physical features must convey its historic character.
Association	Must be the actual place where a historic event or activity occurred and must be sufficiently intact to convey that relationship to an observer.
Source: US DOI, 1991: 44-45.	

### 3.1.2 Architectural Integrity

The National Register has defined seven aspects of architectural integrity:

- Location.
- Design.
- Setting.
- Materials.
- Workmanship.
- Feeling.
- Association.

The attributes of each aspect of integrity are further defined in Table 3-2. To retain historic integrity, a property must possess several, and usually most, of the specific aspects of integrity (US DOI, 1991). Buildings, structures, and sites retaining integrity could be considered eligible for the National Register either individually or as contributing resources within a historic district.

## 3.2 HISTORIC ARCHITECTURAL ASSESSMENT

At the commencement of the historic architectural assessment, General Mitchell IAP ARS real property record cards and the facility address list were reviewed to identify all buildings and structures that are 50 years old or will be 50 years old by 2012, a few years after the projected transfer date of the installation which is scheduled for 2008 (General Mitchell IAP ARS, October 10, 2006; March 15, 2007). The records indicate that 90 facilities have been assigned addresses. Fifteen of the 90 facilities are classified

as historic architectural resources constructed between 1956-62, and are 50 years old or will be 50 years old by 2012. As a result, each of the 15 resources was surveyed.

Following consultation of real property record cards and the facility address list, the Wisconsin Architecture & History Inventory (AHI) and the City of Milwaukee Historic Preservation Commission were consulted online to determine whether National Register-listed and/or eligible historic architectural resources are located within or adjacent to the APE. Archival research was then conducted on historic architectural resources within the APE, and upon completion of research, a field survey was conducted to identify both known historic architectural resources and historic architectural resources that appear to be eligible for listing in the National Register.

Field survey conformed to the standards of the National Park Service and WHS DHP/PH which requires data collection for inclusion in its Wisconsin Historic Preservation Database (WHPD), available online by subscription only and its non-subscription online AHI database. Information gathered included basic structural and architectural information, project map notations, and black-and-white 35 mm photography of building and structure exteriors. Information compiled on each resource is included in Appendix C: WHPD Forms, and will be transferred to WHS DHP/PH for inclusion in its online WHPD and AHI databases of surveyed historic architectural resources that includes both textual and graphical information.

Each building, structure, and site within the study area was analyzed according to the themes or patterns of development identified during the archival research. If the building or structure possessed physical or associative characteristics that significantly related it to the historic context and also possessed sufficient historic integrity to be a good representative of its property type, it was considered architecturally significant according to National Register criteria.

### **3.3 PRIOR EVALUATIONS**

With the conclusion of the Cold War in 1989, the DoD directed the US Air Force to examine the National Register eligibility of their holdings for Cold War significance. As indicated in Table 3-1, National Register Criterion Consideration G indicates that buildings and structures less than 50 years old are usually not eligible for listing in the National Register, unless they are of exceptional significance.

As noted in Chapter 1, the *Final CRMP, General Mitchell Air Reserve Station* prepared by AFRES in 1996 analyzed the historic architectural resources at the installation for exceptional significance for the role that they may played during the Cold War. At that time, no resources at the installation were 50 years or older, and therefore, would have to demonstrate exceptional historic importance to be recommended National Register eligible. The Final CRMP identified 47 buildings and structures erected at the installation during the Cold War. It also noted that Cold War historic properties are defined as “buildings, structures, sites, objects, and districts which were built, used, or associated with critical events or persons during this period, and that possess exceptional historic importance to the Nation or that are outstanding examples of technological or scientific achievement” (Green, 1993; AFRES, 1996).

The Final CRMP noted that the 47 buildings and structures erected during the Cold War would not qualify as exceptionally significant because they were classified as support

structures that lacked a direct connection to the Cold War. In contrast, resources such as missile systems, major airframe types, alert facilities, major training facilities, major test and experimentation facilities, weapons production facilities, key bases and command centers, and special operations facilities would more likely be considered exceptionally significant National Register-eligible resources if they retained architectural integrity (AFRES, 1996). The report concluded that none of the buildings and structures appear to fulfill the exceptional significance criterion, and recommended that a historic architectural survey of General Mitchell IAP ARS occur when buildings and structures reach 50 years of age, beginning in 2006. As noted in Chapter 1, WHS DHP/PH concurred with these findings in 1996.

As noted in Subchapter 3.2, this report will only individually evaluate the 15 historic architectural resources that are 50 years old or nearly 50 years old at General Mitchell IAP ARS. The installation currently consists of 90 facilities that have been assigned addresses (General Mitchell IAP ARS, October 10, 2006). The 15 resources will not be analyzed as a potential historic district because the majority of buildings at the installation (approximately 83 percent) are less than 50 years old and AFRES and WHS DHP/PH have already concurred that buildings and structures less than 50 years old are not exceptionally significant and therefore, would not qualify as a historic district.

### **3.4 THEMATIC STUDIES**

#### **3.4.1 US Air Force Cold War Studies**

Although AFRES and WHS DHP/PH have concurred that General Mitchell IAP ARS did not play an exceptionally significant role in the Cold War in 1996, the installation was established during the early years of the Cold War and therefore, the 15 historic architectural resources that are the subject of this report must be examined in light of this event.

Two documents prepared by the US Air Force have been consulted to assist with evaluating the Cold War material culture at General Mitchell IAP ARS:

- *Coming in from the Cold: Military Heritage in the Cold War* (Center for Air Force History, 1994)
- *A Systematic Study of Air Combat Command Cold War Materiel Culture, Volume I: Historic Context and Methodology for Assessment* (US Air Force Air Combat Command [ACC], 1995)

#### ***Coming in from the Cold: Military Heritage in the Cold War***

The Center for Air Force History report posed five central questions to help cultural resource managers determine the historic value of Cold War property types:

- How central was the resource to the military's mission?
- How many were developed or constructed?
- How much money did the military invest in the resource or resources?
- Does the resource retain historic integrity?
- What or where are similar or equivalent properties?

The report also included an appendix that summarized the role of the US Air Force during the Cold War as follows:

1. Maintenance of air elements for the control of national airspace and sustained the ability to project massive retaliatory force against an adversary by missiles and land-based manned bombers.
2. Deployment of intermediate range ballistic missiles (IRBMs), ICBMs, and air-launched cruise missiles (ALCM).
3. Maintenance of tactical air forces to seize air superiority from enemy forces, support US Army forces on land, interdict enemy movements, forces and lines of communication as necessary.
4. Provision of air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy.
5. Collection of intelligence with the Central Intelligence Agency (CIA) and the National Security Agency (NSA) via technical means, including the use of specially designed aircraft and earth-orbiting satellites that collected imagery for relay to ground stations. Technical expertise, launch facilities, and rocket vehicles to place reconnaissance satellites in orbit were employed by the US Air Force (Center for Air Force History, 1994).

Activities at General Mitchell IAP ARS were related to Item 4, air transport and airlift activities.

Furthermore, the report also grouped US Air Force Cold War assets into five major categories including:

- Operational and support installations.
- Combat weapons systems and support systems.
- Training facilities.
- Materiel development facilities.
- Intelligence facilities (Center for Air Force History, 1994).

General Mitchell IAP ARS could be classified as both an operational and support installation and a training facility.

***A Systematic Study of Air Combat Command Cold War Material Culture, Volume I: Historic Context and Methodology for Assessment***

The ACC report evaluated the material culture of 27 US Air Force ACC bases that lead to the creation of a consistent methodology for ranking Cold War property types. Although General Mitchell IAP ARS is not an ACC installation, the report provided useful lens through which to view it. In decreasing order of importance, these types of facilities are:

- Research and development (R&D) facilities.
- Command, control, communications and intelligence (C<sup>3</sup>I) complexes and systems.
- Strategic weapons systems and support.
- Strategic materiel production facilities.
- Operational support facilities.
- Training facilities.
- Social support facilities (ACC, 1995).

General Mitchell IAP ARS could be classified as a combination operational support, training, and social support facility.

### **3.4.2 Wisconsin Cultural Resources Management Plan**

In 1986, WHS DHP/PH published the three-volume Wisconsin CRMP. The document provides historic contexts to help evaluate significance, recommendations for preservation activities undertaken by the state, including survey needs, threats to resources, and a list of National Register nominations for similar properties. In 2004 the CRMP was updated (WHS DHP/PH, nd).

The Wisconsin CRMP presents concise overviews pertaining to major themes in the state's history. Each theme provides historical background, geographical data, theme-related resource types, and bibliographical information. The themes provide useful information to understand how a historic property compares to others of its type. Two themes in the Wisconsin CRMP are relevant to analyzing the historic importance of General Mitchell IAP ARS. The themes include "Air Transportation" and "Federal Military Installations."

The "Air Transportation" theme provides an overview of the history of aviation in Wisconsin from 1909-2004. The theme specifically describes the history of General Mitchell IAP and its origins, and classifies the airport as one of the 13 in the state to offer commercial passenger service and first-class terminals by the mid-20<sup>th</sup> century. The theme indicates that two aviation-related properties are listed on the National Register in Wisconsin, the Larson Brothers Airport in Winnebago County (1922) and the Waukesha County Airport Hangar in Waukesha County (1936). The theme also indicates that research should be conducted on the contribution of the state's earliest airports and landing strips (i.e., those constructed during the early 20<sup>th</sup> century) (WHS DHP/PH, 2004a).

The "Federal Military Installations" theme provides an overview of the history of federal military installations in Wisconsin from 1813-2004, and includes information on state aviation-related organizations such as the Wisconsin Air National Guard. The theme cites the establishment of General Mitchell IAP ARS by AFRES in 1952. Other military aviation installations included those operated by the Wisconsin Air National Guard, a state organization. One installation is Volk Field at Camp Williams in the Village of Camp Douglas, Wisconsin which was initially established in the 1930s. The other installation is Truax Field in Madison, Wisconsin which was acquired and expanded by the US Army Air Corps in 1942, transferred to the Wisconsin Air National Guard in 1968, and currently occupies a portion of the Dane County Regional Airport

(<<http://www.volkfield.ang.af.mil/www.volkfield.ang.af.mil/history.html>> April 12, 2007; <<http://www.globalsecurity.org/military/facility/truax.htm>> April 12, 2007).

During the early years of the Cold War in 1947, the Wisconsin Air National Guard also established units at General Billy Mitchell Field. These included the 128<sup>th</sup> Fighter Group, the 126<sup>th</sup> Utility Flight, Weather Station; 128<sup>th</sup> Aircraft Control & Warning Squadron; and Detachment A, 228<sup>th</sup> Service Group. Prior to construction of the AFRES installation, the 2473<sup>rd</sup> AFRTC shared some facilities leased from Milwaukee County with the Wisconsin Air National Guard at General Billy Mitchell Field (2473<sup>rd</sup> AFRTC, January–June 1955; (<<http://www.wimilw.ang.af.mil/content/history.html>> April 12, 2007). In 1961, the 128<sup>th</sup> Fighter Wing was re-designated the 128<sup>th</sup> Refueling Group and continues to fulfill this mission from General Mitchell IAP ARS today.

Other federal aviation-related installations were also established in Wisconsin during the Cold War. These included Richard Bong AFB in Burlington, Wisconsin which was transferred out of federal hands in 1960. In addition, a 43-acre communications center in Marathon County known as the Antigo Air Force Station was established in 1956 but by 1979 was without personnel (Freeman, nd; WHS DHP/PH, 2004b).

The “Federal Military Installations” theme indicates that multiple installations in Wisconsin are listed on the National Register, but none of the installations are aviation-related facilities. The theme indicates that since so few historic structures associated with federal military facilities exist today, extant properties which retain architectural integrity should be seriously evaluated for National Register eligibility (WHS DHP/PH, 2004b).

## **4 RESULTS OF SURVEY**

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### **4.1 PREVIOUSLY EVALUATED HISTORIC ARCHITECTURAL RESOURCES ADJACENT TO AREA OF POTENTIAL EFFECT**

A review of AHI, the WHS DHP/PH online database of historic architectural resources, indicates that a small number of previously identified resources are situated adjacent to the APE (Figure 4-1, Historic Resources Within and Adjacent to APE). These include the following:

- **New Coeln House, 5905 South Howell Avenue:** Located on the west side of South Howell Avenue, northwest of General Mitchell IAP ARS, this National Register-listed two-story Italianate-style brick building was constructed as a “half-way house” for travelers between Racine and Milwaukee. While the first floor accommodated a tavern, the second floor provided lodging. The building currently functions as the Landmark Tavern, a restaurant and bar.
- **5867 South Howell Avenue:** Located on the west side of South Howell Avenue, northwest of General Mitchell IAP ARS, this balloon frame retail building is sheathed in clapboard. The building was surveyed in 1980, and at that time was known as Miller’s Lounge. To date, the building has not been evaluated for National Register eligibility.

The Final CRMP also provided information on a previously identified resource situated adjacent to the APE. The resource, St. Stephen’s Church, 5880 South Howell Avenue, is located on the east side of South Howell Avenue, north of General Mitchell IAP ARS. It is a blond brick Gothic-style church that appears to have been constructed during the late 19<sup>th</sup> century. An associated 1960s-era school is located south of the church on the church property. In addition, a discontinuous cemetery is located south of the church on the east side of South Howell Avenue, directly west of General Mitchell IAP ARS. In 1980, the now defunct Milwaukee Landmarks Commission recognized the church as a Milwaukee landmark (AFRES, 1996). The commission was essentially an honorific body that recognized historic sites and districts by designating them as landmarks and marking them with plaques. In 1981, the commission was replaced with the Milwaukee Historic Preservation Commission that was granted the ability to designate and regulate changes to historic buildings and historic districts in the City of Milwaukee. Consultation with the Milwaukee Historic Preservation Commission indicates that St. Stephen’s Church has not been designated a landmark by the current historic preservation commission and therefore, is not afforded protection under the city’s landmarks law (Hatala, pers. comm., April 18, 2007).

### **4.2 HISTORIC ARCHITECTURAL RESOURCES WITHIN AREA OF POTENTIAL EFFECT**

Fifteen historic architectural resources have been identified within the APE at General Mitchell IAP ARS. The resources were constructed between 1956-62, and are either over 50 years old or will be 50 years old by 2012. The 15 resources are listed in Table 4-1. Photos of each resource are included in Appendix B: Photographs. Data for each resource will be entered into the subscription only WHPD database, and non-subscription AHI database, which are both available on the WHS DHP/PH website.

Table 4-1

Historic Architectural Resources at General Mitchell IAP ARS  
Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	Architect/Designer	Integrity	Description
Building 102 6145 South B Street West side of South B Street	Technical Training Building	Reserve Forces Operational Training	1957	Gates Weiss & Kramer/USACE Chicago District (1956)	Retains high integrity	Two-story, 45,317 square-foot International-style E-plan brick building on concrete foundation; capped by flat roof with overhanging eaves; modern fenestration; continuous concrete lintel divides first and second stories; fronted on east by flat lawn with intersecting concrete sidewalks.
Building 104 225 West 7 <sup>th</sup> Avenue South side of West 7 <sup>th</sup> Avenue	Automotive Maintenance Shop	Vehicle Maintenance Shop	1959	Lefebvre-Wiggins & Associates/ USACE Chicago District (1959)  Wilson/Jenkins Associates/ USACE Omaha District (1986)  Foth & VanDyke/USACE Omaha District (1993)	Lacks architectural distinction	Two-story, 7,676 square-foot brick and concrete block building sheathed in stucco panels; concrete foundation; flat roof; modern fenestration; high-bay section accommodates garage; additions and improvements in 1980s and 1990s.
Building 110 6045 South B Street West side of South B Street	CONAC 50-Man Dormitory	Gymnasium	1962	USACE Chicago District (1961)	Lacks architectural distinction	Single-story, 3,384 square-foot International-style, concrete block building sheathed in stucco; concrete foundation; pitched flat roof; modern fenestration; converted into gymnasium in 1980s.

Table 4-1 (con't)

Historic Architectural Resources at General Mitchell IAP ARS  
Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	Architect/Designer	Integrity	Description
Building 111 6035 South B Street West side of South B Street	50-Man Dormitory	Open Mess, Consolidated	1962	Brust & Brust Architects/ USACE Chicago District (1962) 440 <sup>th</sup> TAW (1982)	Lacks architectural distinction	Single-story, 3,384 square-foot International-style, concrete block building sheathed in stucco; concrete foundation; pitched flat roof; modern fenestration; converted into mess in the 1980s.
Building 112 6025 South B Street West side of South B Street	Parachute & Dinghy Shop	Shop, Survival Equipment	1962	USACE Chicago District (1961) Hamm & Kessler/ USACE Omaha District (1975)	Lacks architectural distinction	Single-story, 4,414 square-foot concrete block building with aluminum parachute drying tower; concrete foundation; pitched flat roof; addition constructed in 1970s.
Building 120 300 East College Avenue West Gate, east side of South Howell Avenue	Booster Pumping Station	Fire Protection Pump House	1958	Unknown	Lacks architectural distinction	Single-story, 846 square-foot concrete block building; concrete foundation; flat roof.
Building 205, Sections A-E 6188 South B Street East side of South B Street	Warehouse	Supply & Equipment Warehouse	1956	Gates Weiss & Kramer/ USACE Milwaukee District (Section A) (1955) USACE Chicago District (Section B) (1961) Schutte Phillips Mochon, Inc./USACE Chicago District (Section C) (1962) Schutte Mochon, Inc./USACE Omaha District (Section D) (1972) Threshold Design, Inc. (Section E) (1983)	Lacks architectural distinction	Two-story, 56,130 square-foot concrete block building sheathed in stucco panels; concrete foundation; flat roof; modern fenestration; Sections B-C constructed in 1960s; Section D constructed in 1970s; Section E constructed in 1980s; Sections divided by sliding firewall on interior.

Table 4-1 (con't)

Historic Architectural Resources at General Mitchell IAP ARS  
Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	Architect/ Designer	Integrity	Description
Building 212 380 East 6 <sup>th</sup> Avenue North side of East 6 <sup>th</sup> Avenue	Fire & Crash Station	Fire Station	1960	Lefebvre-Wiggins & Associates/ USACE Chicago District (1959) Durrant Group, Architects & Engineers/ USACE Omaha District (1981) Threshold Design, Inc. (1984) 440 <sup>th</sup> TAW (1989)	Lacks architectural distinction	Single-story, 10,612 square-foot brick building with high-bay garage; concrete foundation; pitched flat roof; additions constructed 1960s-90s.
Building 217 6036 South B Street East side of South B Street and west side of apron	Maintenance Hangar	Maintenance Hangar	1956	Gates Weiss & Kramer/USACE Milwaukee District (1955) Schutte Phillips Mochon, Inc./USACE Chicago District (1962) Foth & VanDyke (1992)	Retains integrity	Two-and-a-half-story, 69,848 square-foot corrugated metal-clad hangar with two-story concrete block shops on east and west facades; massive steel bi-parting rolling doors on north and south facades; interior supported by metal trusswork; upgraded/repared 1960-present.
Building 300 300 East College Avenue East side of C Street	Pumping Station	Reserve Forces General Training S	1956	USACE Milwaukee District (1955)	Lacks architectural distinction	Single-story, 846 square-foot concrete block building sheathed in stucco; concrete foundation; flat roof; converted into training facility in 1980s.
Building 301 300 East College Avenue East side of C Street	Reservoir – Ground Storage	Indoor Small Arms Range	1956	USACE Washington, DC (1955) Threshold Design, Inc. (1983)	Lacks architectural distinction	Single-story, 3,630 square foot earth-covered reinforced concrete structure that accommodates indoor small arms range; exposed west façade; concrete foundation; flat roof; modern frame guard shed atop roof; converted into small arms range in 1980s.

Table 4-1 (con't)

Historic Architectural Resources at General Mitchell IAP ARS  
Milwaukee, Wisconsin

Resource Number/Address/Location	Original Name	Current Name	Year Built	Architect/Designer	Integrity	Description
POL Area						
Structure 308 300 East College Avenue South side of East 7 <sup>th</sup> Avenue	Jet Fuel Storage Tank	Jet Fuel Storage Tank	1956	440 <sup>th</sup> TAW (1975) USACE Omaha District (1983)	Lacks architectural distinction	Round metal tank in dyke upgraded in 1980s.
Structure 309 300 East College Avenue South side of East 7 <sup>th</sup> Avenue	Jet Fuel Storage & Dispensing	Jet Fuel Fill Stand, Truck	1956	Gates Weiss & Kramer/USACE Milwaukee District (1955) GEC Design Group (1997)	Lacks architectural distinction	Metal canopy over fuel dispensing system; upgraded canopy installed in 1990s.
Building 310 300 East College Avenue South side of East 7 <sup>th</sup> Avenue	Jet Fuel Pump House	Pump Station, Landing Field	1956	Gates Weiss & Kramer/USACE Milwaukee District (1955)	Lacks architectural distinction	Single-story, 684 square-foot concrete block building sheathed in stucco; concrete foundation; flat roof.
Ramp Area and Taxiway						
Structures 7101 & 7102 300 East College Avenue East side of General Mitchell IAP ARS	Apron and Taxiway	Apron (Structure 7101) and one Taxiway (Structure 7102)	1956	DeLeuw Cather & Company/ USACE Milwaukee District (1955)	Lacks architectural distinction	106,858 square-yard concrete-paved apron and 16,093 square-yard taxiway; repaired 1960s-present.
<p>Source: General Mitchell IAP ARS, Real Property Records List, October 10, 2006.            Building Plans on file at Building 106 (Civil Engineering), General Mitchell IAP ARS.            440<sup>th</sup> Airlift Wing Archive Project, CD-ROM with historic aerial photographs on file at Building 102 (440<sup>th</sup> AW Public Affairs Office), General Mitchell IAP ARS.</p>						

Copies of the database entries for each of the 15 resources, including physical descriptions, statements of significance, National Register eligibility evaluations, and scanned black-and-white photographs are found in Appendix C: WHPD Forms.

#### **4.3 EVALUATION OF HISTORIC ARCHITECTURAL RESOURCES WITHIN AREA OF POTENTIAL EFFECT**

To qualify for the National Register, the 15 buildings and structures at General Mitchell IAP ARS must represent a significant part of AFRES history during the early years of the Cold War on the national level, and aviation and federal military installation history in Wisconsin on the state and local levels. Therefore, the historic architectural resources must have the characteristics that make them good representatives of properties associated with those aspects of the past.

The significance of a historic architectural resource can be judged and explained only when it is evaluated within its historic context. Historic contexts are those patterns, themes or trends in history by which a specific occurrence, property, or site is understood, and its meaning within prehistory or history made clear. The core premise of the concept of a historic context is that resources, properties, and events in history do not occur in a vacuum, but rather are part of larger trends or patterns (US DOI, 1991).

To determine whether a property is significant within its historic context, five aspects must be evaluated:

- The facet of history that the property represents.
- Whether the facet of history is significant.
- Whether it is a type of property that has relevance and importance in illustrating the historic context.
- How the property illustrates that history.
- Whether the property possesses the physical features necessary to convey the aspect of history with which it is associated.

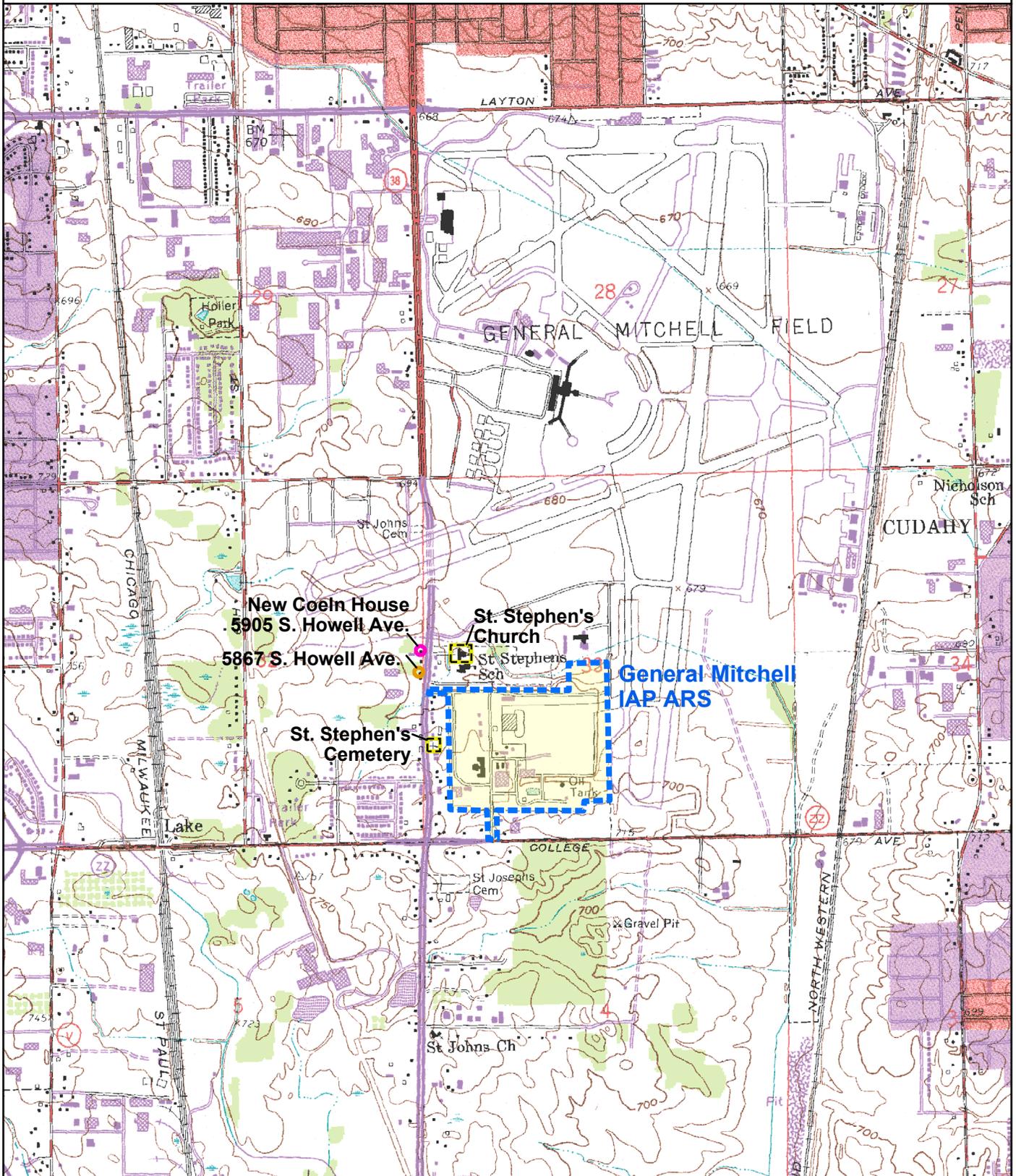
To evaluate the historic significance of the 15 historic architectural resources at General Mitchell IAP ARS, they were examined through two lenses: a national lens and a state/local lens. The national lens examined the role that the 15 resources played in the AFRES's conduct of the early years of the Cold War. The state/local lens examined the role that the 15 resources played in Wisconsin's and Milwaukee's aviation and federal military installation history. The national lens will be described first, followed by the state/local lens.

##### **4.3.1 Application of Historic Contexts: US Air Force Cold War Studies**

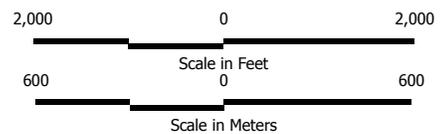
###### ***Coming in from the Cold: Military Heritage in the Cold War***

As discussed in Chapter 3, this report posed five principal questions, the answers to which can assist in determining whether the 15 historic architectural resources at General Mitchell IAP ARS are historically significant for the role that they played during the early years of the Cold War.

# Historic Resources Within and Adjacent to APE



- National Register-Listed Resource
- Surveyed, Unevaluated Historic Architectural Resource
- Area of Potential Effect
- Honorary Milwaukee Landmark



Source: USGS, *Greendale, Wisconsin*, 1994.

Figure 4-1

## **Mission of General Mitchell International Airport Air Reserve Station**

AFRES activated the 924<sup>th</sup> Training Wing at General Billy Mitchell Field in 1952, four years after the creation of AFRES in 1948. A few months later, the training wing was re-designated the 438<sup>th</sup> Fighter Bomber Wing and by 1953, was re-designated the 2473<sup>rd</sup> AFRTC and flew fighter aircraft to fulfill its air defense mission. The unit operated from leased facilities at General Billy Mitchell Field which hampered its growth. Thus, between 1953-54, the federal government acquired approximately 100 acres at the southwest corner of the airport for the new permanent home of the 2473<sup>rd</sup> AFRTC.

By 1957, several major buildings and structures were completed at the installation, including Building 102 (Reserve Forces Operational Training); Building 205 (Supply & Equipment Warehouse [Section A]); Building 217 (Maintenance Hangar); and buildings and structures in the POL and Ramp areas, including the Apron (Structure 7101) and the Taxiway (Structure 7102).

One year later in 1958, the 2473<sup>rd</sup> AFRTC was replaced by the 440<sup>th</sup> TCW and the unit, currently known as the 440<sup>th</sup> AW, has remained at General Mitchell IAP ARS since that time. The unit's mission remained consistent over the course of the Cold War: air transport and airlift for troops, cargo, and humanitarian aid. Thus, the 440<sup>th</sup> TCW and its successors fulfilled its Cold War mission by playing a supporting role for the maneuvers of AFRES. Although the unit played an important role during the Cold War, it did not play a leadership role by directly engaging in historically significant activities such as R&D, C<sup>3</sup>I, strategic weapons systems support, or strategic materiel production.

## **General Mitchell International Airport Air Reserve Station Compared to Similar Properties**

By the 1960s, General Mitchell IAP ARS was one of a few AFRES installations in the mid-western US. These included the home of the 934<sup>th</sup> TAG at Minneapolis-St. Paul International Airport in Minnesota, and the 928<sup>th</sup> TAG at Chicago-O'Hare International Airport in Illinois. While Minneapolis-St. Paul airport remains the home of the 934<sup>th</sup> AW, successor to the 34<sup>th</sup> TAG, the installation at Chicago-O'Hare International Airport closed in the 1990s in accordance with BRAC (<[www.afrc.af.mil/units](http://www.afrc.af.mil/units)> April 12, 2007). Similarly, US Air Force installations in Wisconsin, such as Richard Bong AFB and Antigo Air Force Station, were transferred out of federal hands in the 1960s and later.

In Wisconsin, General Mitchell IAP ARS has also co-existed with other Wisconsin Air National Guard installations over time. While General Mitchell IAP ARS can be classified as a strictly federal installation, the Wisconsin Air National Guard is commanded by state governors in peacetime, and during national emergencies or wartime, may be called to federal active duty by the President or Congress.

In the 1930s, the Wisconsin Air National Guard established Volk Field at Camp Williams in Camp Douglas, Wisconsin, which remains an active military base today, and unlike General Mitchell IAP ARS, is not associated with a commercial airport. In 1942, the US Army Air Corps, predecessor to the US Air Force, acquired Truax Field in Madison, Wisconsin. In 1968, it was transferred to the Wisconsin Air National Guard and remains an Air National Guard installation at the Dane County Regional Airport. General Mitchell IAP ARS has also co-existed at the airport with the 128<sup>th</sup> Air Refueling Wing, a unit of Wisconsin's Air National Guard. Although both units initially shared some facilities

leased from Milwaukee County, by 1956, AFRES had its own installation located at the southwest corner of the airport.

Thus, General Mitchell IAP ARS was one of a few AFRES installations erected at a major metropolitan or regional airport to assist the reserve in carrying out its mission. Comparable properties include the AFRES installation at Minneapolis-St. Paul International Airport in Minnesota, and Wisconsin Air National Guard installations at General Mitchell IAP and Truax Field at the Dane County Regional Airport in Madison, Wisconsin. Therefore, General Mitchell IAP ARS was not a unique property during the Cold War.

### **Money Invested in General Mitchell International Airport Air Reserve Station**

The federal government appropriated approximately \$8 million for the initial construction of the home of the 2473<sup>rd</sup> AFRTC in the 1950s. From the 1960s onward, its successor unit, the 440<sup>th</sup> AW, succeeded in obtaining funding to improve the installation to facilitate training of reservists, and improve aircraft maintenance, storage, administrative, and security spaces. The money invested at General Mitchell IAP ARS is modest in comparison to R&D, C<sup>3</sup>I, strategic weapons systems support, and strategic materiel production installations constructed during the Cold War.

### **Historic Integrity at General Mitchell International Airport Air Reserve Station**

The 15 historic architectural resources at General Mitchell IAP ARS are not being examined as a historic district because in 1996, AFRES and WHS DHP/PH concurred that the installation lacked exceptional significance for the role it played in the Cold War and agreed that resources should be examined upon turning 50 years of age. The 15 historic architectural resources that are the subject of this report are either 50 years old or will be 50 years old by 2012. As noted in Table 4-1 and Appendix C: WHPD Forms, the majority of these resources have been altered over time. These alterations include the application of stucco cladding; insertion of modern fenestration; construction of multiple additions; and changes in building use.

However, two key historic architectural resources at General Mitchell IAP ARS retain a high degree of historic integrity:

- Building 102 (Reserve Forces Operational Training).
- Building 217 (Maintenance Hangar).

These resources still convey the historic feeling and association of administrative and aviation-related resources built during the 1950s-60s, the height of the Cold War.

### **Location of Properties Similar to General Mitchell International Airport Air Reserve Station**

As noted under Question 2, General Mitchell IAP ARS was not a unique property constructed during the Cold War. In the Midwest, General Mitchell IAP ARS was comparable to the home of the 934<sup>th</sup> AW at Minneapolis-St. Paul International Airport and the 928<sup>th</sup> TAG at Chicago-O'Hare International Airport. While the 934<sup>th</sup> AW installation survives, the 928<sup>th</sup> TAG installation has been transferred out of federal

hands. General Mitchell IAP ARS also shares similarities with extant Wisconsin Air National Guard facilities at commercial airports, including the 128<sup>th</sup> Air Refueling Wing at General Mitchell IAP and the 115<sup>th</sup> Fighter Wing at Truax Field at the Dane County Regional Airport in Madison, Wisconsin.

### ***A Systematic Study of Air Combat Command Cold War Material Culture, Volume I: Historic Context and Methodology for Assessment***

The ACC report indicated that installations such as General Mitchell IAP ARS could be classified as a combination operational support, training, and social support facility. Thus, such facilities were less likely to have played a significant role in the Cold War in comparison to R&D, C<sup>3</sup>I, weapons, and materiel production facilities that most likely had a direct influence in Cold War policy making. The history of General Mitchell IAP ARS in Chapter 2 supports the contention that the installation fulfilled its operational support mission and therefore, did not play a crucial key role in AFRES's conduct of the Cold War.

#### **4.3.2 Application of Historic Contexts: Wisconsin Cultural Resources Management Plan**

Two historic contexts in the Wisconsin CRMP provide useful lenses through which to evaluate the historic significance of the 15 historic architectural resources at General Mitchell IAP ARS. These include the "Air Transportation" and the "Federal Military Installation" theme.

The "Air Transportation" theme traces the history of aviation in Wisconsin and describes the origins of General Mitchell IAP as test field for the Hamilton Aero Manufacturing Company, fabricators of propellers during World War I. By the 1930s, Milwaukee County acquired the field, known as Hamilton Airport. During World War II, the field was renamed General Billy Mitchell Field to honor the aviation booster, Wisconsin native, and military pilot. By the time that the 2473<sup>rd</sup> AFRTC began constructing its home base of operations at the southwest corner of the field in the mid-1950s, the airport was poised became one of the state's largest.

The "Federal Military Installation" theme indicates that General Mitchell IAP ARS was one of the earliest AFRES installations to be established at a commercial airport in Wisconsin during World War II or the Cold War. Similar properties include:

- Truax Field, which was initially established by the US Army Air Corps in 1942, transferred to the Wisconsin Air National Guard in 1968, and currently functions as the home of the 115<sup>th</sup> Fighter Wing Dane County Regional Airport-Truax Field; and
- 128<sup>th</sup> Air Refueling Wing which was initially established by the Wisconsin Air National Guard at General Billy Mitchell Field in 1947, and remains at General Mitchell IAP today.

Although General Mitchell IAP ARS shares similarities with Truax Field and the 128<sup>th</sup> Air Refueling Wing, it is a federal military installation at a commercial airport rather than a state-controlled military installation.

In conclusion, the “Air Transportation” theme indicates that the state’s earliest airports should be documented and examined (WHS DHP/PH 2004a). The “Federal Military Installation” theme indicates that because so few historic structures associated with federal military facilities exist today in Wisconsin, extant properties which retain architectural integrity should be seriously evaluated for National Register eligibility (WHS DHP/PH, 2004b).

As noted earlier in this subchapter, two key historic architectural resources at General Mitchell IAP ARS retain a high degree of historic integrity. These include:

- Building 102 (Reserve Forces Operational Training).
- Building 217 (Maintenance Hangar).

These two resources functioned as the key properties at General Mitchell IAP ARS and fulfilled administrative functions (Building 102) and aviation functions (Building 217). Each of these resources conveys the historic feeling and association of an AFRES facility erected by the federal government during the early years of the Cold War in a major Midwestern city, Milwaukee, Wisconsin. National Register eligibility evaluations of these two historic architectural resources are provided in Chapter 5 and Appendix C: WHPD Forms.

## 5 CONCLUSIONS AND RECOMMENDATIONS

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The main objective of this Historic Building Inventory and Evaluation Report is to provide initial evaluations of significance and National Register eligibility recommendations. The baseline level documentation provides the information necessary to make such evaluations. Once initial recommendations of eligibility are made, future management considerations for facilities can be determined.

In accordance with Section 106 of NHPA, as amended, 15 historic architectural resources were identified within the APE at General Mitchell IAP ARS. The 15 resources were evaluated using the four National Register criteria to determine eligibility of historic properties:

- Association with historic events (Criterion A).
- Association with important persons (Criterion B).
- Distinctive design (Criterion C).
- Potential to provide important information about history (Criterion D).

Historic integrity was determined during the field inspections. Integrity of location, setting, and association was determined by comparing existing conditions to those illustrated in historic maps and photographs. The assessment of the significance of a property within its historic context was based on National Park Service guidelines.

### 5.1 CONCLUSIONS

The 15 historic architectural resources within the APE at General Mitchell IAP ARS were evaluated as individual properties and the characteristics of each property were documented during the assessment. Two of the 15 resources appear to be eligible for listing in the National Register for their state and local historic significance, including Building 102 (Reserve Forces Operational Training) and Building 217 (Maintenance Hangar). (Figure 5-1, National Register Status). These resources are described in Table 5-1.

Thirteen of the 15 resources are recommended non-National Register-eligible because, overall, they lack a high degree of historic integrity. WHPD and AHI database entries for the two recommended National Register-eligible resources and the 13 recommended non-National Register-eligible resources are found in Appendix C: WHPD Forms. These forms include physical descriptions, statements of significance, National Register eligibility evaluations, and scans of black-and-white photographs.

Table 5-1

Recommended National Register-Eligible Historic Architectural Resources  
 General Mitchell IAP ARS  
 Milwaukee, Wisconsin

Building Number	Original Name	Current Name	Year Built	National Register Eligibility Statement
Building 102	Technical Training Building	Reserve Forces Operational Training	1957	Building 102 appears to be National Register eligible under Criteria A and C for its state and local historic significance, and its architectural design, respectively. Building 102 appears to be National Register eligible under Criterion A, history, because it survives as a good example of a key administrative building at Wisconsin's only surviving AFRES installation. Since its construction in 1957, the national and international activities of the 440 <sup>th</sup> AW have been coordinated and overseen in this building. Building 102 also appears to be National Register-eligible under Criterion C, design. Conceived by Gates Weiss & Kramer under contract to the USACE Chicago District, it survives as an excellent example of an International-style building at a federal military installation.
Building 217	Maintenance Hangar	Maintenance Hangar	1956	Building 217 appears to be National Register eligible under Criteria A and C for its state and local historic significance, and its architectural design, respectively. Building 217 appears to be National Register eligible under Criterion A, history, because it remains as the key aircraft maintenance hangar at Wisconsin's only surviving AFRES installation. Since its construction in 1956, the national and international airlift activities of the 440 <sup>th</sup> AW have been partially launched from this building. Building 217 also appears to be National Register-eligible under Criterion C, design. Conceived by Gates Weiss & Kramer under contract to the USACE Milwaukee District, it survives as a good example of a mid-20 <sup>th</sup> century hangar erected at a federal military installation.

# National Register Status



- Inventoried Historic Architectural Resource
- National Register - Eligible Resource
- Proposed National Register Boundary
- Installation Boundary
- Creek

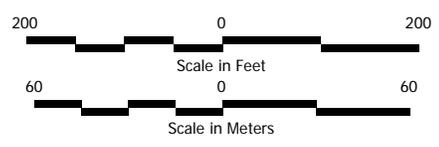


Figure 5-1

## 5.2 RECOMMENDATIONS

Two recommended National Register-eligible resources are located at General Mitchell IAP ARS: Building 102 and Building 217. Under Section 106 of NHPA, codified as 36 CFR Part 800 - Protection of Historic Properties, transfer of this property out of federal hands may have an adverse effect on these two historic architectural resources. AFCEE will consult with WHS DHP/PH to examine methods to mitigate these potential adverse impacts. Possibilities include documenting the resources to the standards of the Historic American Buildings Survey (HABS), or the WHS DHP/PH equivalent, and establishing a Memorandum of Agreement (MOA) for the divestiture of these two resources.

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### 6.4 UNPUBLISHED DOCUMENTS

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General Mitchell IAP ARS. Real Property Records List. October 10, 2006. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

General Mitchell IAP ARS. Real Property Address by Facility. March 15, 2007. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

## **6.5 BUILDING PLANS**

### **6.5.1 Building 102**

Gates Weiss & Kramer/US Army Corps of Engineers (USACE) Chicago District. "Technical Training Building 102." Drawings 102-003 – 102-007; 102-054. 1956. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

440<sup>th</sup> Tactical Airlift Wing (TAW). "High Frequency (HF) Antenna, Airfleet Command/Control-Building 102." Drawing No. 102-072. 1974. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

### **6.5.2 Building 104**

Foth & VanDyke/USACE Omaha District. "Refueling Bay-Building 104." Drawing No. 104-073. 1993. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Lefebvre-Wiggins & Associates/USACE Chicago District. "Automotive Maintenance Shop-Building 104." Drawing No. 104-001. 1959. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Wilson Jenkins Associates/USACE Omaha District. "Addition to Vehicle Maintenance Shop-Building 104." Drawing 104-023. 1986. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

### **6.5.3 Building 110**

USACE, Chicago District. "Continental Air Command (CONAC) 50-Man Dorm (Airmen Dorm)-Building 110." Drawing No. 110-001. 1961a. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

### **6.5.4 Building 111**

Brust & Brust Architects/USACE Chicago District. "50-Man Dormitory-Building 111." Drawing No. 111-001. 1962. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

440<sup>th</sup> TAW. "Revisions to Base Plan, Lounge Area-Building 111. Drawing No. 111-001. 1982. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

### **6.5.5 Building 112**

Hamm & Kessler, Inc./USACE Omaha District. "Addition to Parachute & Dinghy Shop-Building 112." Drawing No. 112-051. 1975. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

USACE Chicago District. "Parachute Shop-Building 112." Drawing No. 112-003. 1961b. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

### **6.5.6 Building 205**

Gates Weiss & Kramer/USACE Milwaukee District. "Warehouse, Building 205, Section A." Drawing 205-001. 1955a. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

USACE Chicago District. "Warehouse-Addition B-Building 205." Drawing No. 205-019. 1961c. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

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Schutte Phillips Mochon, Inc./USACE Chicago District. "Warehouse-Addition C-Building 205." Drawing No. 205-032. 1962a. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Threshold Design, Inc. "Addition to Warehouse-Section E-Building 205." Drawing No. 205-124. 1983. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

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### **6.5.10 Building 301**

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## 7 LIST OF PREPARERS

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## 8 ACRONYMS

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ACC	Air Combat Command
AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AFI	Air Force Instruction
AFR	Air Force Requirement
AFRES	Air Force Reserve
AFRTC	Air Force Reserve Training Center
AHI	Architecture & History Inventory
ALCM	Air-Launched Cruise Missile
APE	Area of Potential Effect
ARS	Air Reserve Station
ART	Air Reserve Technician
AW	Airlift Wing
BRAC	Base Realignment and Closure
C <sup>3</sup> I	Command, Control, Communications & Intelligence
CFR	Code of Federal Regulations
CIA	Central Intelligence Agency
CONAC	Continental Air Command
CONEX	Container Express
CRMP	Cultural Resources Management Plan
DBCRA	Defense Base Closure and Realignment Act
DoD	Department of Defense
EO	Executive Order
GNP	Gross National Product
HABS	Historic American Buildings Survey
IAP	International Airport
ICBM	Intercontinental Ballistic Missile
IRBM	Intermediate Range Ballistic Missile
LOX	Liquid Oxygen
MOA	Memorandum of Agreement
NATO	North Atlantic Treaty Organization
NEPA	National Environmental Policy Act
NDI	Non-Destructive Inspection
NHPA	National Historic Preservation Act
NSA	National Security Agency
POL	Petroleum, Oil & Lubricants
R&D	Research & Development
SHPO	State Historic Preservation Office
TAG	Tactical Airlift Group
TAW	Tactical Airlift Wing
TCG	Troop Carrier Group
TCW	Troop Carrier Wing
USACE	US Army Corps of Engineers
USC	United States Code
US DOI	US Department of Interior
UTA	Unit Training Assembly

WHS DHP/PH

Wisconsin Historical Society, Department of Historic  
Preservation/Public History

WHPD

Wisconsin Historic Preservation Database

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## **Appendix A**

# **Agency Correspondence**

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State Historical Society of Wisconsin

Division of Historic Preservation

816 State Street • Madison, Wisconsin 53706-1488  
☎ (608) 264-6500 • FAX (608) 264-6404

May 6, 1996

Ms. Teresa Rudolph  
Science Applications International  
Corporation  
406 South 8th Street  
Suite #201  
Boise, Idaho 83702

IN REPLY PLEASE REFER TO SHSW: #96-0521/MI  
RE: Cultural Resources Management Plan For General  
Mitchell Air Reserve Station

Dear Ms. Rudolph:

We have reviewed the above-referenced project as required for compliance with Section 106 of the National Historic Preservation Act and 36 CFR Part 800: Protection of Historic Properties, the regulations of the Advisory Council on Historic Preservation governing the section 106 review process and have the following comments to make.

We concur with the report's recommendation that an archeological survey be conducted in the areas that have not been disturbed by previous construction activities. We also recommend that archival information be gathered to document which areas on the facility have been previously disturbed and do not have the potential to contain any archeological sites that are eligible for inclusion in the National Register of Historic Places.

The earliest building was constructed in 1956. There is no need to revisit the issue of eligibility until the buildings are at least 50 years or older (2006).

If there are any questions concerning this matter, please contact me at (608) 264-6507.

Sincerely,

Sherman J. Banker  
Compliance Archeologist

SJB:lks

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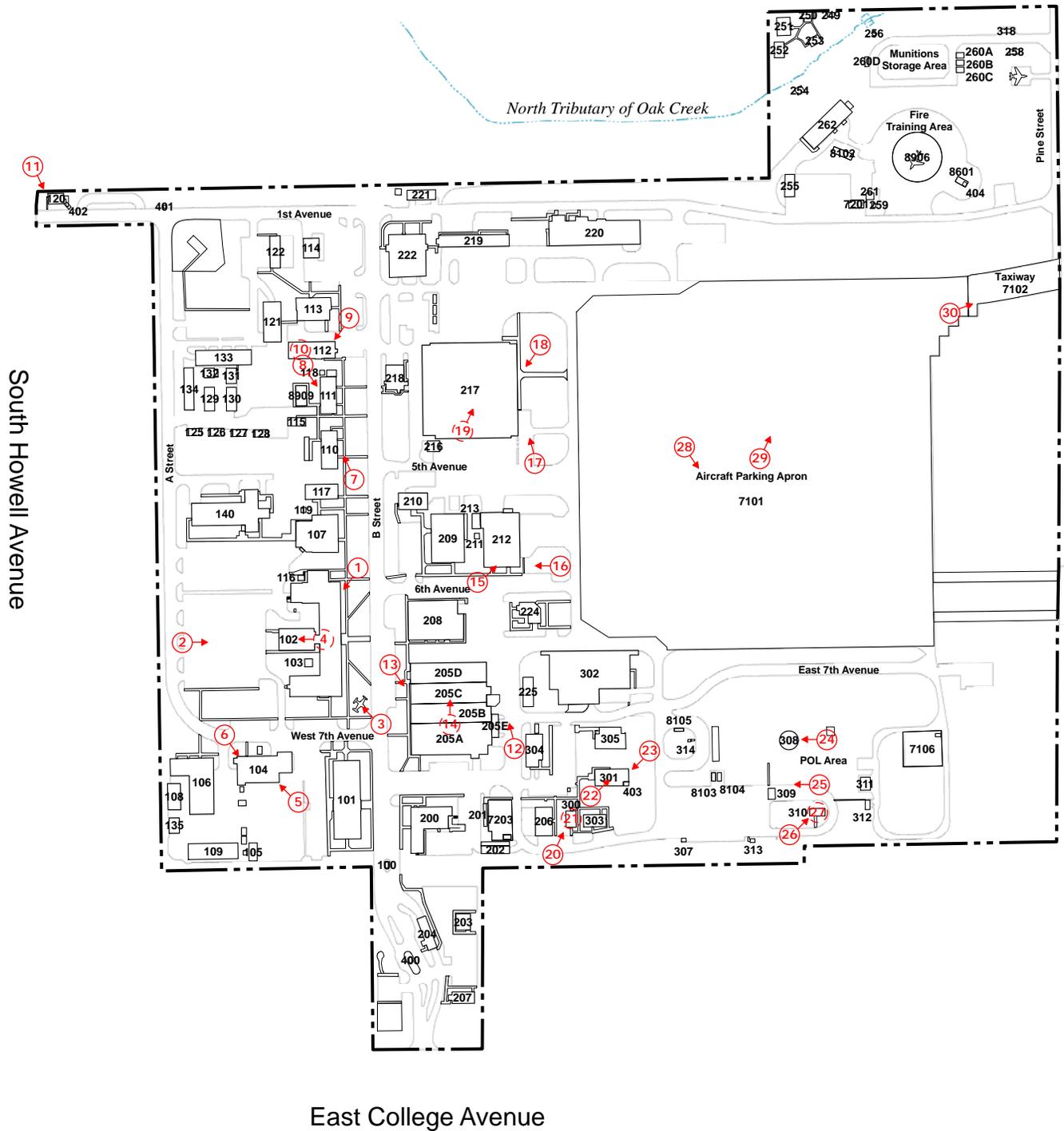
## **Appendix B**

## **Photographs**

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# Photo Location Map



- ① → Exterior Photo Location
- ⑩ → Interior Photo Location
- Installation Boundary
- Creek

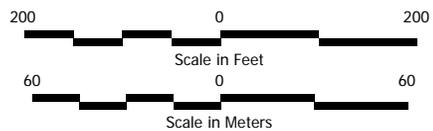


Figure B-1



**Photo 1.** Looking toward east façade of Building 102 (Reserve Forces Operational Training). Note International-style details, including plain façade; flat-roof entry portico; and large window openings. Other features include formal lawn (in foreground) and high frequency (HF) antennae.



**Photo 2.** Looking toward west façade of Building 102. Building conforms to an E-shaped plan; auditorium is located in central windowless wing. Note HF antenna array.



**Photo 3.** Looking toward southeast corner of Building 102. Note architectural features, including continuous lintel and flat roof with overhanging eaves. Mounted T-33 Shooting Star aircraft serves as a memorial to deceased 440<sup>th</sup> Airlift Wing members.



**Photo 4.** Interior of Building 102 auditorium. Note original wood stage.



**Photo 5.** Looking toward south façade of Building 104 (Vehicle Maintenance Shop). Note modern roll-up doors and façade sheathed in stucco panels.



**Photo 6.** Looking toward north and west facades of Building 104. Note brick cladding and metal cornice.



**Photo 7.** Looking toward east façade of Building 110 (Gymnasium). Building originally functioned as a 50-man dormitory. Note clerestory windows and stucco cladding.



**Photo 8.** Looking toward west façade of Building 111 (Open Mess, Consolidated). Building originally functioned as 50-man dormitory. Note clerestory windows and stucco cladding.



**Photo 9.** Looking toward north façade of Building 112 (Shop, Survival Equipment). Note parachute drying tower with seal of 440th Airlift Wing.



**Photo 10.** View of interior of parachute drying tower in Building 112.



**Photo 11.** Looking toward south and west facades of Building 120 (Fire Protection Pump House). Note utilitarian features, including industrial window.



**Photo 12.** Looking toward east façade of Building 205 (Supply & Equipment Warehouse). Note loading docks for Sections A-D of warehouse (left to right) Section E, single story section (center), is used for ammunition storage.



**Photo 13.** Looking toward northwest corner of Building 205. Note modern windows, doors and stucco panel cladding.



**Photo 14.** Interior of Building 205 between Sections A and B. Note sliding fireproof door sheathed in metal panels.



**Photo 15.** Looking toward southwest corner of Building 212 (Fire Station). Note fenestration and brick cladding.



**Photo 16.** Looking toward east façade of Building 212. Note high-bay garage section for fire trucks.



**Photo 17.** Looking toward southeast corner of Building 217 (Maintenance Hangar). Note sliding hangar doors with tail door in gable end. Lean-to structures along east and west facades accommodate shops.



**Photo 18.** Looking toward northeast corner of Building 217. Note east lean-to structure and lawn that buffers hangar from apron.



**Photo 19.** Interior of Building 217 with C-130H Hercules aircraft undergoing repairs. Note roof supported by multiple trusses.



**Photo 20.** Looking toward west façade of Building 300 (Reserve Forces General Training S). Until 1980s, building originally functioned as pump house for reservoir. Note industrial windows and stucco cladding.



**Photo 21.** Interior of Building 300. Note modern materials.



**Photo 22.** Looking toward south and west facades of Building 301 (Indoor Small Arms Range). Until 1980s, building originally functioned as reservoir. Note earthen berm along south façade and Building 403, a modern guard house, atop roof.



**Photo 23.** Looking toward north and east facades of Building 301. Note earthen berms and roof structures.



**Photo 24.** Looking west toward Structure 308 (Jet Fuel Storage Tank). Tank and dyke, originally constructed in the 1950s, were upgraded in the 1980s.



**Photo 25.** Looking west toward Structure 309 (Jet Fuel Fill Stand, Truck). Fill stand, originally constructed in the 1950s, was upgraded in the 1990s..



**Photo 26.** Looking toward south and west facades of Building 310 (Pump Station, Landing Field). Note modern fenestration and stucco cladding.



**Photo 27.** Interior of Building 310 featuring jet fuel pumps.



**Photo 28.** Looking southeast toward Hercules C-130H aircraft on Structure 7101 (Apron).



**Photo 29.** Looking northeast along Structure 7101 (Apron). Note fire training facilities in background.



**Photo 30** Looking east toward Runway 1-19R from Structure 7102 (Taxiway) at General Mitchell IAP ARS.

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## **Appendix C**

# **Wisconsin Historic Preservation Database Forms**

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## BUILDING 102

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
6145 South B Street  
**City or Village:** Milwaukee  
**Current Name:** Building 102 (Reserve Forces Operational Training)  
**Historic Name:** Building 102 (Technical Training Building)  
**Wall Material:** Brick  
**Map Code:** 253/23; 253/33; 253/34  
**Survey Map:** Building 102  
**Construction Date:** 1957  
**Structural System:** Steel frame  
**Survey Date:** 2007  
**Designer Name:** Gates Weiss & Kramer, Engineers & Architect, Milwaukee,  
Wisconsin/Corps of Engineers, US Army, Office of the District  
Engineer, Chicago District, Chicago, Illinois  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** International Style  
**Cultural Affiliation:**  
**Resource Type:** Office Building at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 102 is located at 6145 South B Street at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. It is a two-story E-plan brick building located on the west side of South B Street. The three stems of the E-plan building form three separate wings. The building is constructed atop a concrete foundation and is capped by a flat roof with broad overhanging eaves.

The building is fronted by a formal lawn with three intersecting concrete sidewalks, bisected by two diagonal sidewalks. The central sidewalk provides access to the main entry and a flagpole is located at the northeast corner of the lawn. A mounted T-33 Shooting Star aircraft is located at the southeast corner of the building and was erected to honor members of the 440<sup>th</sup> AW who lost their lives through tragic aircraft crashes in 1965 and 1985. A small lawn with concrete sidewalks is located west of Building 102. Four high frequency (HF) antennae are located at the building, including three adjacent to the west façade and one mounted on the roof near the south wing (440<sup>th</sup> TAW, 1974).

The east façade is the principal façade and forms the spine of the E plan. It is 15 bays long. A continuous concrete lintel divides the first and second stories. With the exception of the central bay, each window opening on the first and second stories contain modern five-unit windows. Each unit is divided into three sections with anodized aluminum transoms and alternating lower sections equipped with awning or hopper windows. The principal entry in the central bay consists of two modern double plate-glass doors separated by a plate-glass window. The doors and window are topped by three transoms. The entry is sheltered by a flat-roof portico supported by two metal columns on a concrete base, accessed by three steps. The second story window above the entry is a four-unit window, but shares similar details to the five-unit windows.

## **BUILDING 102**

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The north or side façade has a different fenestration pattern than the east facade. It has two modern double tri-partite windows that flank a central tri-partite window. A single-story kitchen addition is appended to the façade. It is capped by a flat roof with overhanging eaves and pierced by a variety of modern windows including double, triple and four-unit windows. Each unit has a fixed portion with a lower awning. The south or side façade has similar architectural details to the north façade.

The west façade of Building 102 has three wings: a north wing, a central wing, and a south wing. The north wing consists of single-story high-bay brick section with large rectangular windows, capped by a flat roof. Plans indicate that the wing was originally designated the flight surgeon's wing (Gates Weiss & Kramer, US Army Corps of Engineers [USACE] Chicago District, 1956). A single-story kitchen addition is appended to the north façade. The central wing consists of a high-bay windowless brick section, and accommodates an auditorium. The south wing, originally known as the link trainer wing, consists of a single-story brick section capped by a flat roof with overhanging eaves (Gates Weiss & Kramer, USACE Chicago District, 1956). It is pierced by modern single, double, triple, and five-unit modern windows. The windows are similar to those found on the north and south facades of the building. A mechanical penthouse is located atop the roof of the south wing. It is constructed of brick, topped by a flat roof and pierced by modern windows and doors.

### **Statement of Significance**

Building 102 was constructed in 1956 as the Technical Training Building for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. Designed by the Milwaukee-based architecture and engineering Gates Weiss & Kramer, the firm was hired by the US Army, Office of the District Engineer, Chicago District, the branch of the military that typically oversaw design and construction for military installations (Gates Weiss & Kramer/USACE Chicago District, 1956). Building 102, the administrative headquarters of the 2473<sup>rd</sup> Air Force Reserve Training Center (AFRTC) was completed in 1957, the same year that the 2473<sup>rd</sup> AFRTC, a fighter-bomber unit, was deactivated and eventually replaced by the 440<sup>th</sup> Troop Carrier Wing (TCW), an airlift unit.

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 102 has played a key role in the history of the installation. From 1957 to the present, Building 102 has functioned as the headquarters of the 440<sup>th</sup> TCW and its successor, the 440<sup>th</sup> Airlift Wing (AW). The 440<sup>th</sup> AW has assisted AFRES in fulfilling its airlift mission by providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. Since its construction, Building 102 has functioned as the nucleus of activities for Wisconsin's primary US Air Force installation. Over the course of the Cold War (1946-89), multiple activities of the 440<sup>th</sup> AW have been coordinated in Building 102. Highlights include overseeing the month-long deployment of the 440<sup>th</sup> TCW during the Cuban Missile Crisis in 1962, and from the 1970s-80s, multiple training missions within the US, including Alaska. Missions were also carried out abroad during this period in regions as varied as Central America, Europe, India, and Russia, to name a few. Multiple humanitarian missions were also coordinated in Building 102, including responses to natural disasters such as snowstorms and hurricanes. In the 1990s, deployment of the 440<sup>th</sup> AW to Operation Desert Shield and Operation Desert Storm was coordinated in Building 102. In the 2000s, deployments to Afghanistan and Guantanamo Bay, Cuba partially originated in the building, and recently, deployments to Iraq have also been overseen from this location (AFCEE, 2007).

## **BUILDING 102**

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Building 102 appears to be National Register eligible under Criteria A and C for its state and local historic significance, and its architectural design, respectively. Building 102 appears to be National Register eligible under Criterion A, history, because it survives as a good example of a key administrative building at Wisconsin's only surviving AFRES installation. Since its construction in 1957, the national and international activities of the 440<sup>th</sup> AW have been coordinated and overseen in this building. Building 102 also appears to be National Register-eligible under Criterion C, design. Conceived by Gates Weiss & Kramer under contract to the USACE Chicago District, it survives as an excellent example of an International-style building at a federal military installation. During the post-World War II era, the International Style became a popular building mode for government buildings such as Building 102. The style favored clean, spare lines with no ornamentation and coincided with the philosophy of the US Air Force, the newest branch of the military, which sought to protect the nation through aerospace power for peace. In fact, the US Air Force preference for the International Style is reflected at the US Air Force Academy in Colorado Springs, Colorado, designed by Skidmore Owings & Merrill, celebrated practitioners of the International Style, and completed around the same time as Building 102 in 1958 (<<http://www.usafa.af.mil/superintendent/pa/factsheets/quick.htm>> April 13, 2007). Building 102 retains a high degree of integrity as a mid-1950s administrative building at a federal military installation. Although the building has been slightly altered over time, including the replacement of windows and doors and construction of small additions, its historic feeling and character have remained intact.

The proposed National Register boundary of Building 102 includes the building footprint, the front (east) lawn, including the network of intersecting sidewalks, the small rear (west) lawn with concrete sidewalks, and the four HF antennae. The mounted T-33 aircraft at the southeast corner of the building, Building 103 (Electrical Power Station Building), and Building 116 (Electrical Power Station Building) are non-contributing resources within the National Register boundary.

### **References**

"A Quick Look at the US Air Force Academy."

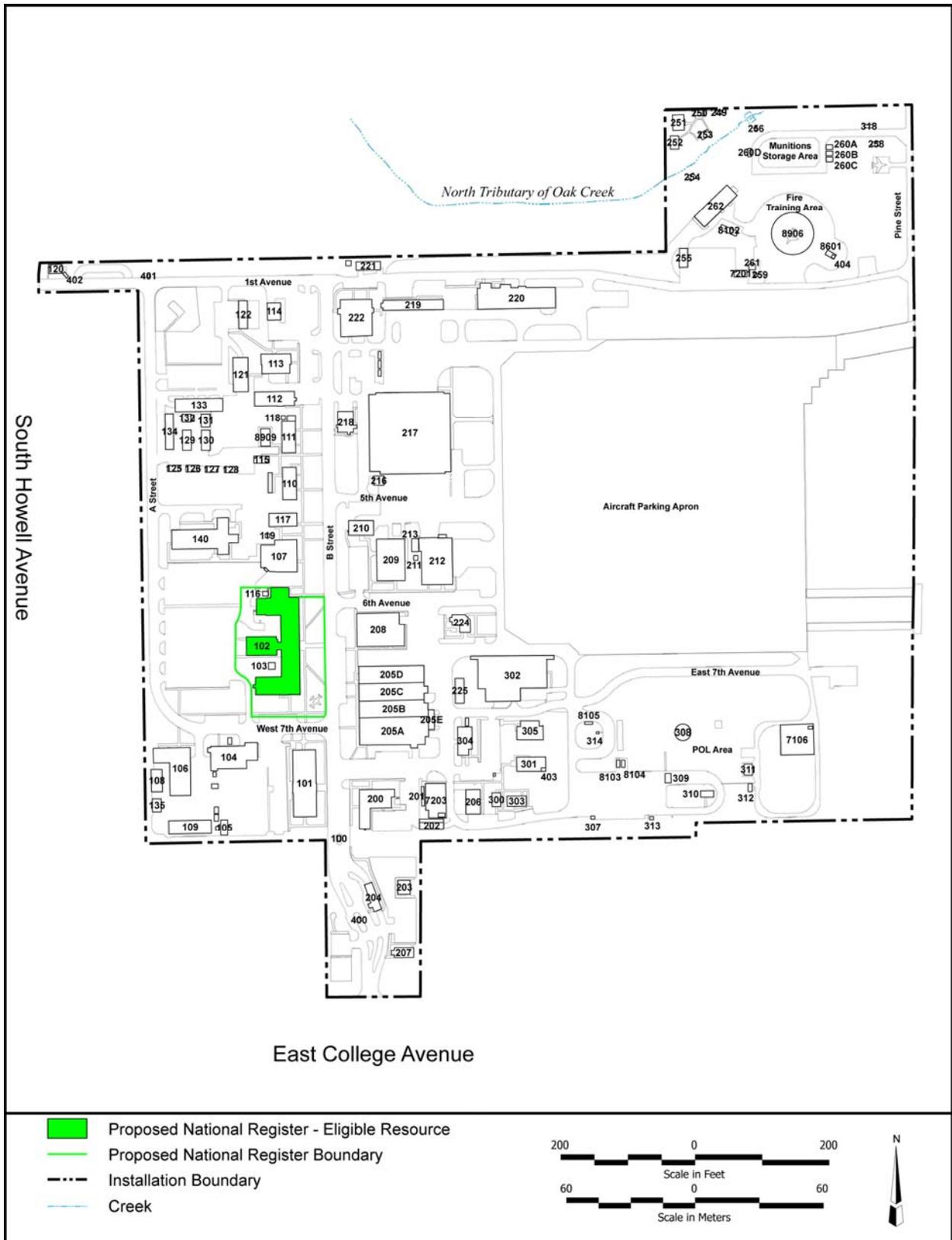
June 2005. <<http://www.usafa.af.mil/superintendent/pa/factsheets/quick.htm>> Accessed April 13, 2007.

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440<sup>th</sup> Tactical Airlift Wing (TAW). "High Frequency (HF) Antenna, Airfleet Command/Control-Building 102." Drawing No. 102-072. 1974. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 102



## BUILDING 102

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Photo 253/23: View looking toward north and east facades of Building 102 (Reserve Forces Operational Training). Note International-style details, including plain façade; flat roof with overhanging eaves; flat-roof entry portico; and large window openings. Single-story kitchen addition is appended to north façade and shares similar stylistic features with building core. Note formal front lawn east of building.



Photo 253/34: View looking toward south and east facades of Building 102. Note horizontal form and massing of building; high frequency (HF) antenna array; and mounted T-33 Shooting Star aircraft at southeast corner of building.

## BUILDING 102

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Photo 253:33: View looking toward west façade of Building 102. Note three projecting wings, including center windowless auditorium wing. High frequency (HF) antenna array surrounds building.

# BUILDING 104

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
225 East 7<sup>th</sup> Avenue  
**City or Village:** Milwaukee  
**Current Name:** Building 104 (Vehicle Maintenance Shop)  
**Historic Name:** Building 104 (Automotive Maintenance Shop)  
**Wall Material:** Stucco over concrete masonry units; brick  
**Map Code:** 253/5; 259/4  
**Survey Map:** Building 104  
**Construction Date:** 1959  
**Structural System:** Concrete block  
**Survey Date:** 2007  
**Designer Name:** Lefebvre-Wiggins & Associates/Corps of Engineers, US Army,  
Office of the District Engineer, Chicago District, Chicago, Illinois  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Modern/International Style  
**Cultural Affiliation:**  
**Resource Type:** Maintenance Building at a Federal Military Installation

## Additional Comments:

## Physical Description

Building 104 is located at 225 West 7<sup>th</sup> Avenue on the south side of West 7<sup>th</sup> Avenue at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. Building 104 is a two-story rectangular-plan building that sits atop a concrete foundation. It is sheathed in brick and stucco panels over concrete block. It is capped by a flat roof with a simple anodized aluminum cornice. The building consists of two sections: a high-bay two-story section that accommodates garage functions, and a single story section that accommodates administrative functions.

The stucco-clad high-bay section constitutes the southern portion of the building. It is pierced by five modern roll-up doors, one of which at the southeast corner is extra large. Standard doors and windows are located at the southwest corner.

The brick-clad single-story section constitutes the northern portion of the building and is pierced by industrial windows and metal doors. A high-bay garage addition with a deep anodized aluminum cornice is appended to the northeast corner of the northern section, and is accessed by two modern roll-up doors.

## Statement of Significance

Building 104 was constructed in 1959 as the Automotive Maintenance Shop for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. Designed by Lefebvre-Wiggins & Associates, the firm was hired by the US Army, Office of the District Engineer, Chicago District, the branch of the military that typically oversaw design and construction for military installations (Lefebvre-Wiggins & Associates/US Army Corps of Engineers [USACE] Chicago District, 1959).

## **BUILDING 104**

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As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 104 played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. Building 104 has accommodated vehicle maintenance for the 440<sup>th</sup> AW since its construction in 1959, and it was enlarged in the 1980s and 1990s to enable it to continually serve this function (Wilson/Jenkins Associates/USACE Omaha District, 1986; Foth & VanDyke/USACE Omaha District, 1993). Building 104 has been highly altered over time and lacks architectural distinction. Therefore, Building 104 is not eligible for listing in the National Register.

### **References**

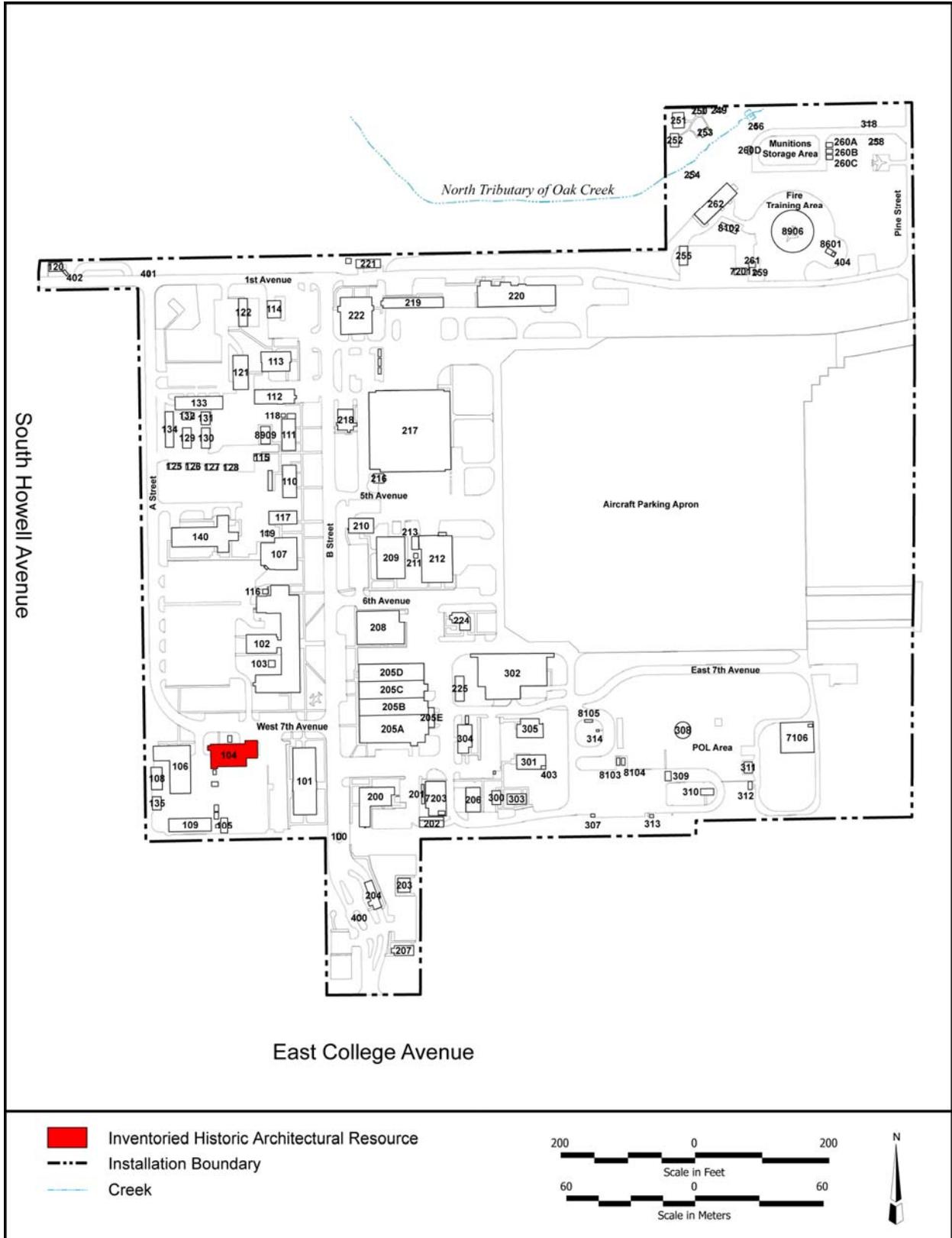
AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Lefebvre-Wiggins & Associates/USACE Chicago District. "Automotive Maintenance Shop-Building 104." Drawing No. 104-001. 1959. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Foth & VanDyke/USACE Omaha District. "Refueling Bay-Building 104." Drawing No. 104-073. 1993. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Wilson Jenkins Associates/USACE Omaha District. "Addition to Vehicle Maintenance Shop-Building 104." Drawing 104-023. 1986. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 104



## BUILDING 104

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Photo 253/5: View looking toward south façade of Building 104 (Vehicle Maintenance Shop). Building sheathed in stucco panels and has modern fenestration.



Photo 259/4: View looking toward north and west façades of Building 104. North façade sheathed in brick; west façade sheathed in stucco panels.

## BUILDING 110

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
6045 South B Street  
**City or Village:** Milwaukee  
**Current Name:** Building 110 (Gymnasium)  
**Historic Name:** Building 110 (Continental Air Command [CONAC] 50-Man  
Dormitory)  
**Wall Material:** Stucco over concrete masonry units  
**Map Code:** 254/3A  
**Survey Map:** Building 110  
**Construction Date:** 1962  
**Structural System:** Concrete block  
**Survey Date:** 2007  
**Designer Name:** Corps of Engineers, US Army, Office of the District Engineer,  
Chicago District, Chicago, Illinois  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** International Style  
**Cultural Affiliation:**  
**Resource Type:** Recreation building at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 110 is located at 6045 South B Street on the west side of South B Street at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. It is a single-story, rectangular-plan, stucco-clad building that sits atop a concrete foundation and is capped by a pitched flat roof with eaves that overhang the east and west facades. The roof fascia is sheathed in anodized aluminum. The building is pierced by modern fenestration. Rectangular awning-type clerestory windows are situated just below the roofline. Each window is set within a deep reveal, accented by concrete sills. Building 110 is nearly identical to Building 111 (Open Mess, Consolidated) which was also originally constructed as 50-Man Dormitory.

### Statement of Significance

Building 110 was constructed in 1962 as a 50-Man Dormitory for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. It was designed by US Army Corps of Engineers, Chicago District, the branch of the military that typically oversaw design and construction at military installations (US Army Corps of Engineers [USACE] Chicago District, 1962).

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 110 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. In the 1980s, Building 110 was eventually converted to function as a gymnasium (Lavey, pers. comm., April 30, 2007). Similarly, its neighbor, Building 111 was converted to function as a mess hall. As a result, reservists attending unit training assemblies (UTAs) were

## **BUILDING 110**

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required to seek lodging in regional hotels. Building 110 has been altered over time, including a change in function. It lacks architectural distinction, and therefore, Building 110 is not eligible for listing in the National Register.

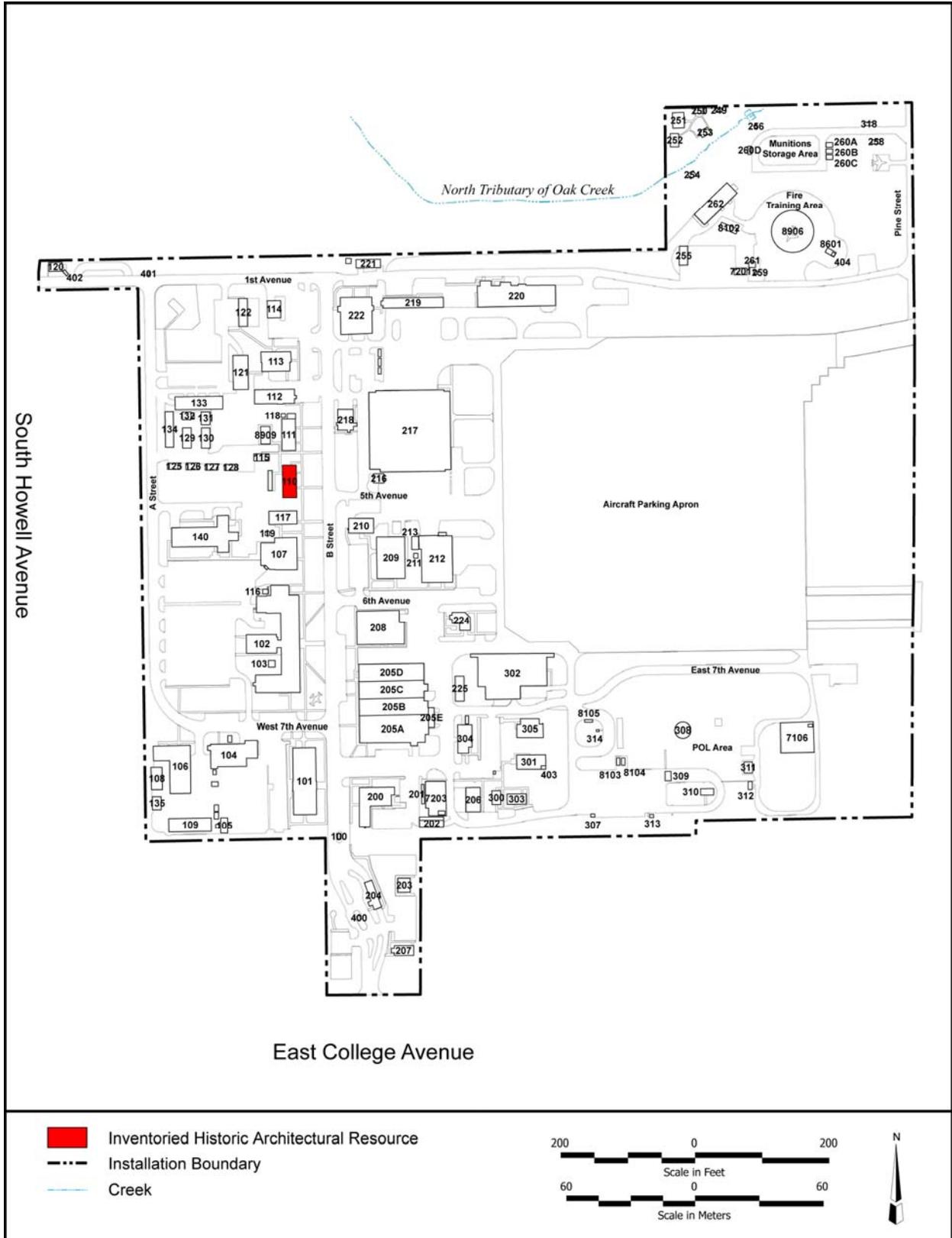
### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Lavey, Steven G., P.E. Base Civil Engineer, General Mitchell IAP ARS. E-mail correspondence. April 30, 2007.

USACE, Chicago District. "CONAC 50-Man Dorm (Airmen Dorm)-Building 110." Drawing No. 110-001. 1961a. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 110



## BUILDING 110

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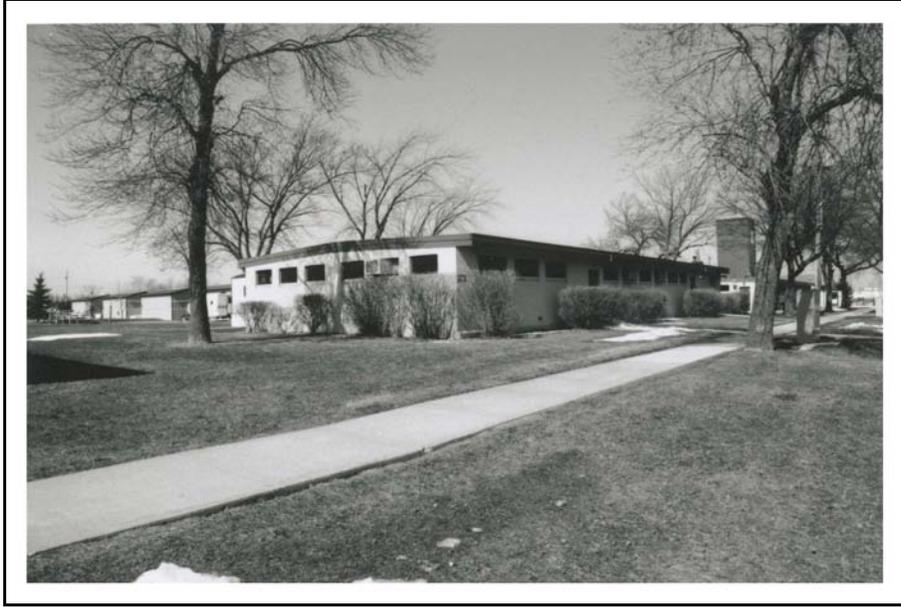


Photo 254/3A: View looking toward south and east facades of Building 110 (Gymnasium). Building was originally constructed as a 50-man dormitory. Note clerestory windows and stucco cladding.

# BUILDING 111

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
6035 South B Street  
**City or Village:** Milwaukee  
**Current Name:** Building 111 (Open Mess, Consolidated)  
**Historic Name:** Building 111 (50-Man Dormitory)  
**Wall Material:** Stucco over concrete masonry units  
**Map Code:** 254/12A  
**Survey Map:** Building 111  
**Construction Date:** 1962  
**Structural System:** Concrete block  
**Survey Date:** 2007  
**Designer Name:** Brust & Brust Architects, Milwaukee, Wisconsin/Corps of Engineers, US Army, Office of the District Engineer, Chicago District, Chicago, Illinois  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** International Style  
**Cultural Affiliation:**  
**Resource Type:** Mess Building at a Federal Military Installation

## Additional Comments:

## Physical Description

Building 111 is located at 6035 South B Street on the west side of South B Street at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. It is a single-story, stucco-clad, rectangular-plan building that sits atop a concrete foundation, and is capped by a pitched flat roof with eaves that overhang the east and west facades. The roof fascia is sheathed in anodized aluminum. The building is pierced by modern fenestration. Rectangular awning-type clerestory windows are situated just below the roofline. Each window is set within a deep reveal, accented by concrete sills. In general, there are ten windows that pierce the east and west facades and six windows that pierce the north and south facades. Two metal doors are located on the east façade and one metal door is located on the west façade.

## Statement of Significance

Building 111 was constructed in 1962 as a 50-Man Dormitory for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. It was designed by the Milwaukee-based architecture firm, Brust & Brust Architects for the US Army Corps of Engineers (USACE), Chicago District, the branch of the military that typically oversaw design and construction at military installations (Brust & Brust/USACE Chicago District, 1962).

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 111 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. In the 1980s, Building 111 was eventually converted to function as a mess hall (440<sup>th</sup> Tactical Airlift Wing [TAW], 1982). Similarly, its neighbor, Building 110 was converted to

## **BUILDING 111**

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function as a gymnasium around the same period (Lavey, pers. comm., April 30, 2007). As a result reservists attending unit training assemblies (UTAs) were required to seek lodging in regional hotels. Building 111 has been altered over time, including a change in function. It lacks architectural distinction, and therefore, Building 111 is not eligible for listing in the National Register.

### **References**

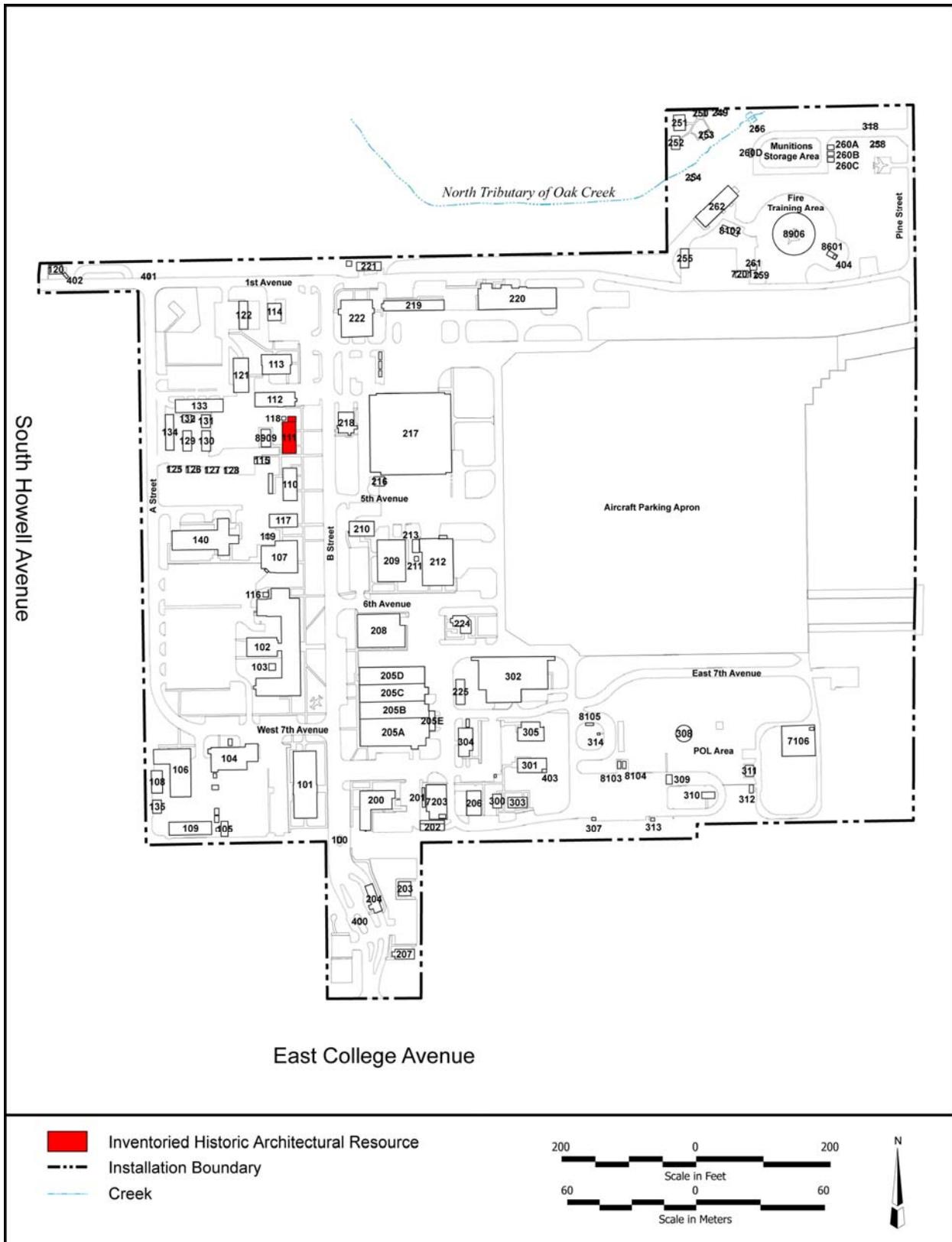
AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Brust & Brust Architects/USACE Chicago District. "50-Man Dormitory-Building 111." Drawing No. 111-001. 1962. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Lavey, Steven G., P.E. Base Civil Engineer, General Mitchell IAP ARS. E-mail correspondence. April 30, 2007.

440<sup>th</sup> TAW. "Revisions to Base Plan, Lounge Area-Building 111. Drawing No. 111-001. 1982. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 111



## BUILDING 111

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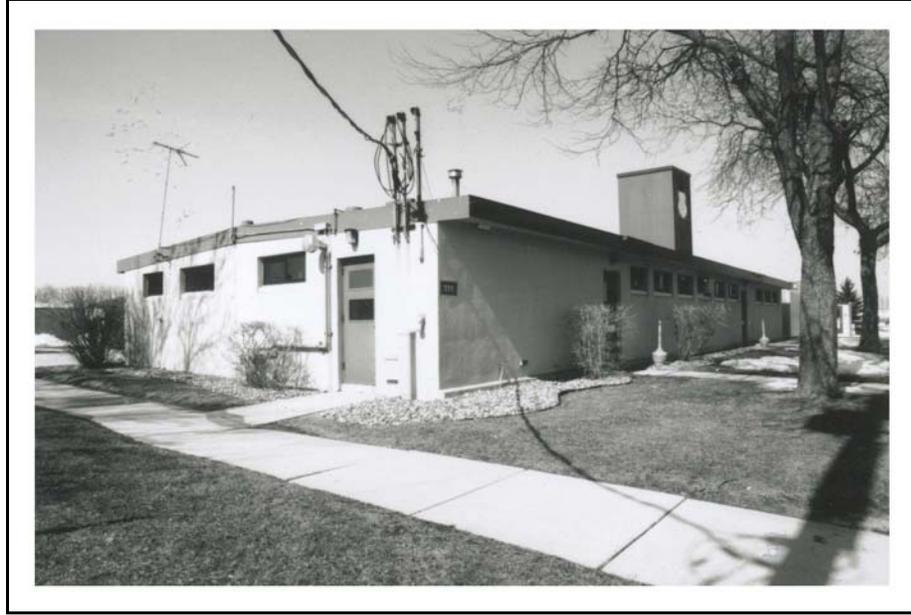


Photo 254/12A: View looking toward south and east facades of Building 111 (Open Mess, Consolidated). Building was originally constructed as a 50-man dormitory and shares similar features with Building 110.

## BUILDING 112

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
6025 South B Street  
**City or Village:** Milwaukee  
**Current Name:** Building 112 (Shop, Survival Equipment)  
**Historic Name:** Building 112 (Parachute & Dinghy Shop)  
**Wall Material:** Concrete masonry units  
**Map Code:** 259/17  
**Survey Map:** Building 112  
**Construction Date:** 1962  
**Structural System:** Concrete block  
**Survey Date:** 2007  
**Designer Name:** Corps of Engineers, US Army, Office of the District Engineer,  
Chicago District, Chicago, Illinois  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Light industrial  
**Cultural Affiliation:**  
**Resource Type:** Workshop at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 112 is located at 6025 South B Street on the west side of South B Street at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. Building 112 is a single-story rectangular-plan concrete block building that consists of two sections: a single-story section and a high-bay section.

The single-story section is capped by a pitched flat roof with broadly overhanging eaves on the north and south facades. The roof fascia is sheathed in anodized aluminum. The section, located at the eastern end of the building, is pierced by modern windows and window bands, and doors. A rectangular-plan vestibule is appended to the east façade. The most prominent feature of the single-story section is the parachute drying tower. The tower is roughly three stories high and pierces the southwest corner of the roof. It is sheathed in corrugated metal panels and bears the shield of the 440<sup>th</sup> Airlift Wing (AW).

The high-bay section has few architectural details. It is constructed of concrete block and is pierced by modern windows, single doors and double-doors. The high-bay section originally accommodated the dinghy shop when it was constructed in the 1970s.

### Statement of Significance

Building 112 was constructed in 1962 as the Parachute Shop for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field, Milwaukee, Wisconsin. It was designed by the US Army Corps of Engineers (USACE), Chicago District, the branch of the military that typically oversaw design and construction for military installations (USACE Chicago District, 1961).

## **BUILDING 112**

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As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 112 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> AW since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. In 1975, the high-bay section was added to the west façade to accommodate the dinghy shop. The shop was designed by Hamm & Kessler, Inc., Engineers, Milwaukee, Wisconsin, under contract to the USACE, Omaha District (Hamm & Kessler, Inc./USACE Omaha District, 1975). Building 112 has served as the survival equipment shop since its construction in 1962 and enlargement in the 1970s. While Building 112 has enabled the 440<sup>th</sup> AW to fulfill its airlift mission, it is a common building, lacks architectural distinction, and is therefore not eligible for listing in the National Register.

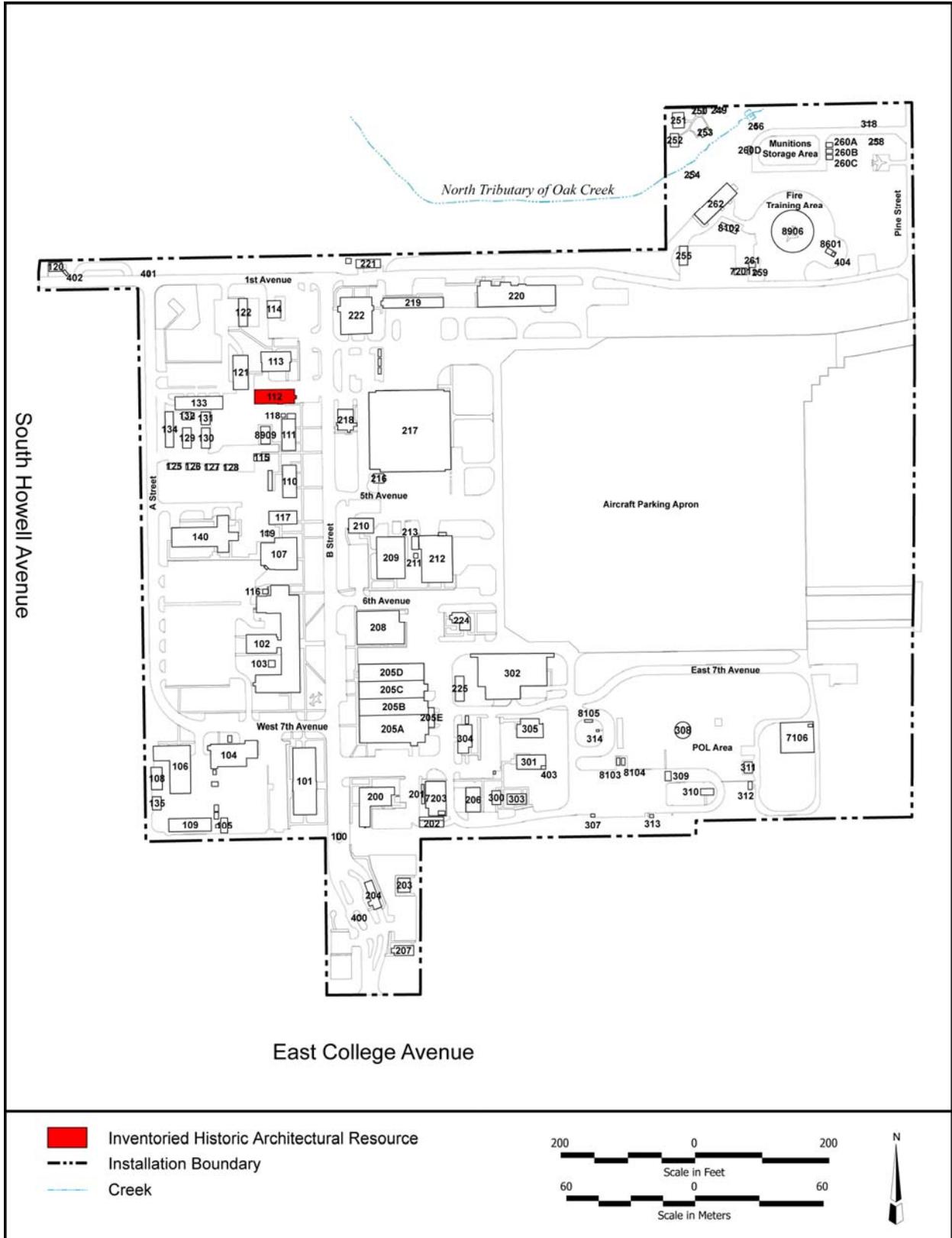
### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Hamm & Kessler, Inc./USACE Omaha District. "Addition to Parachute & Dinghy Shop-Building 112." Drawing No. 112-051. 1975. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

USACE Chicago District. "Parachute Shop-Building 112." Drawing No. 112-003. 1961. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 112



## BUILDING 112

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Photo 259/17: View looking toward north and east facades of Building 112 (Shop, Survival Equipment). Note plain facades and parachute drying tower which is sheathed in corrugated metal panels.

## BUILDING 120

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
300 East College Avenue  
**City or Village:** Milwaukee  
**Current Name:** Building 120 (Fire Protection Pump House)  
**Historic Name:** Building 120 (Booster Pumping Station)  
**Wall Material:** Concrete masonry units  
**Map Code:** See Building 300 (Pumping Station [Historic Name]) (Reserve Forces General Training S [Current Name])  
**Survey Map:** Building 120  
**Construction Date:** 1958  
**Structural System:** Concrete block  
**Survey Date:** 2007  
**Designer Name:** Most likely US Army Corps of Engineers (USACE)  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial building  
**Cultural Affiliation:**  
**Resource Type:** Pumping station at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 120 is located at 300 East College Avenue on the east side of South Howell Avenue at the West Gate of General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. Building 120 is a single-story, rectangular-plan, concrete block building that sits atop a concrete foundation. It is capped by a flat roof. The roof fascia is sheathed in anodized aluminum. The building is pierced by industrial windows on the north and south facades. Access is gained by doors on the east and west facades.

### Statement of Significance

Building 120 was constructed in 1958 as the Booster Pumping Station for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field, Milwaukee, Wisconsin. It was most likely designed by the USACE, the branch of the military that typically oversaw design and construction for military installations. Building 120 is similar in size and shape to Building 300, originally designed by the USACE Milwaukee District in the 1950s as a pumping station. Because Building 300 is similar to Building 120, both buildings most likely share the same design history.

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 120 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. In 1968, the building ceased functioning as a pumping station and was converted into an aircraft workshop (General Billy Mitchell Field, March 18, 1958). In the 1990s, it was converted to function as the Fire Protection Pump House (Lavey, pers. comm., April 30, 2007; Mangold, pers. comm., April 30, 2007). While Building 120 has assisted the 440<sup>th</sup> AW with

## **BUILDING 120**

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water distribution and other support functions at the installation, it is a common building. Building 120 lacks architectural distinction and therefore, is not eligible for listing in the National Register.

### **References**

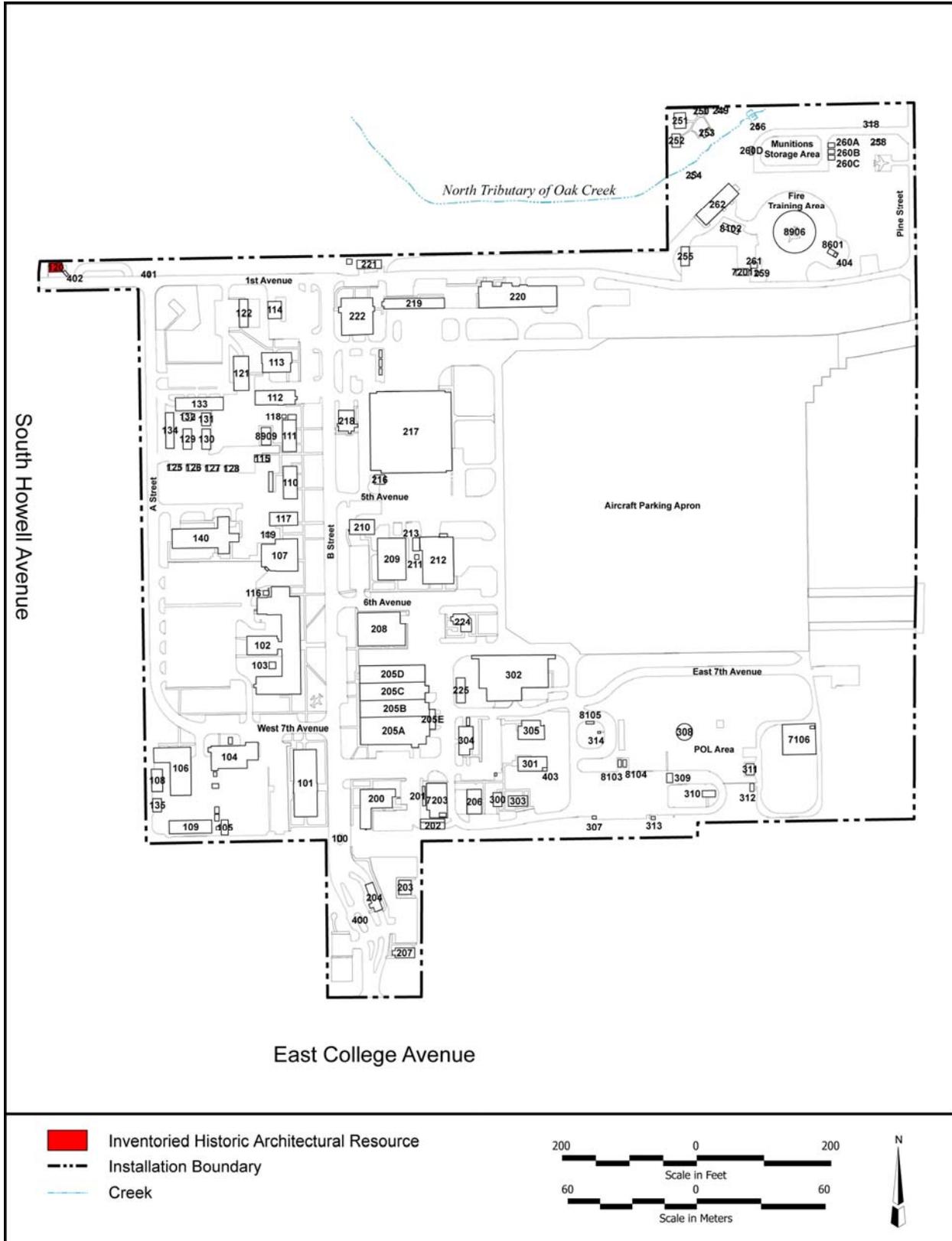
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General Billy Mitchell Field. Real Property Accountable Record Card – Building 120. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Lavey, Steven G., P.E. Base Civil Engineer, General Mitchell IAP ARS. E-mail correspondence. April 30, 2007.

Mangold, Louis J. P.E., Engineering Flight Chief, General Mitchell IAP ARS. E-mail correspondence. April 30, 2007.

# BUILDING 120



## BUILDING 205

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
6188 South B Street  
**City or Village:** Milwaukee  
**Current Name:** Building 205 (Supply & Equipment Warehouse)  
**Historic Name:** Building 205 (Warehouse)  
**Wall Material:** Stucco over concrete masonry units  
**Map Code:** 254/26A; 254/29A  
**Survey Map:** Building 205  
**Construction Date:** 1956; additions: 1960s-80s  
**Structural System:** Steel frame  
**Survey Date:** 2007  
**Designer Name:** Gates Weiss & Kramer, Engineers & Architect, Milwaukee,  
Wisconsin/Corps of Engineers, US Army, Office of the District  
Engineer, Milwaukee, Wisconsin  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Light industrial  
**Cultural Affiliation:**  
**Resource Type:** Warehouse at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 205 is located at 6188 South B Street on the east side of South B Street at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. It is a two-story, rectangular-plan, stucco-clad building that sits atop a concrete foundation. It is capped by a flat roof with a cornice sheathed in anodized aluminum. The facades are sheathed in stucco panels. Fenestration includes modern windows, metal doors and metal roll-up doors. The loading dock occupies the east façade. The building was constructed in five sections between the 1950s-80s, including Section A (1956); Section B (1961); Section C (1962); Section D (1972); and Section E (1983). Section E is appended to the east façade of Sections A and B and functions as the ammunition storage space. On the interior of the building, sliding fireproof doors sheathed in metal panels separate Sections A, B, C and D.

### Statement of Significance

Section A of Building 205 was constructed in 1956 as the Warehouse for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. Designed by the Milwaukee-based architecture and engineering Gates Weiss & Kramer, the firm was hired by the US Army, Office of the District Engineer, Milwaukee District, the branch of the military that typically oversaw design and construction for military installations (Gates Weiss & Kramer, US Army Corps of Engineers [USACE], Milwaukee District, 1955). While Section B was most likely designed by the USACE Chicago District, Section C was designed by Schutte Phillips Mochon, Inc. of Milwaukee under contract to the Omaha District. Section D was designed by Schutte Mochon, Inc., successor firm to Schutte Phillips Mochon, Inc. under contract to the Omaha District, and Section E was designed by Threshold Design of Pewaukee, Wisconsin (USACE Chicago District, 1961; Schutte Phillips Mochon, Inc. /USACE Chicago District, 1962; Schutte Mochon, Inc./USACE Omaha District, 1972; Threshold Design, 1983).

## **BUILDING 205**

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As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 205 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. Building 205 has functioned as the base warehouse for the 440<sup>th</sup> AW since its construction in the 1950s, and has been enlarged through the 1980s to enable it to continually serve this function. Building 205 lacks architectural distinction, and therefore, is not eligible for listing in the National Register.

### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Gates Weiss & Kramer/USACE Milwaukee District. "Warehouse, Building 205, Section A." Drawing 205-001. 1955a. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

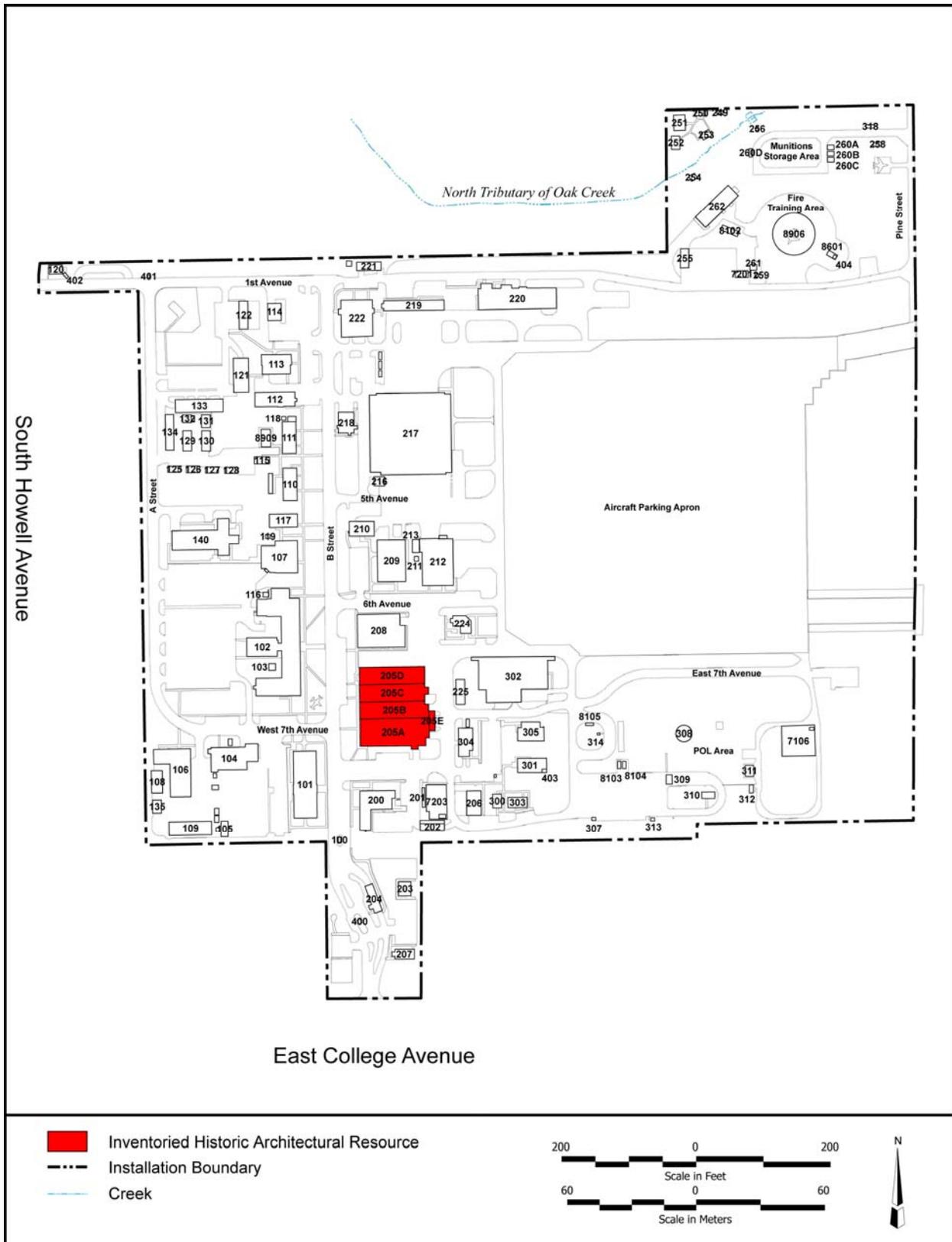
Schutte Mochon, Inc./USACE Omaha District. "Aerial Port Training Facility-Addition D-Building 205." Drawing No. 205-051. 1972. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Schutte Phillips Mochon, Inc./USACE Chicago District. "Warehouse-Addition C-Building 205." Drawing No. 205-032. 1962. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Threshold Design, Inc. "Addition to Warehouse-Section E-Building 205." Drawing No. 205-124. 1983. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

USACE Chicago District. "Warehouse-Addition B-Building 205." Drawing No. 205-019. 1961. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 205



## BUILDING 205

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Photo 254/26A: View looking toward the south and west facades of Building 205 (Supply & Equipment Warehouse). Note facades sheathed in stucco panels and modern fenestration. Building was constructed in sections between the 1950s-80s.



Photo 254/29A: View looking toward the east and south facades of Building 205. Note loading docks and Section E on east facade which accommodates the ammunition storage space.

## BUILDING 212

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
380 East 6<sup>th</sup> Avenue  
**City or Village:** Milwaukee  
**Current Name:** Building 212 (Fire Station)  
**Historic Name:** Building 212 (Fire & Crash Station)  
**Wall Material:** Brick  
**Map Code:** 254/34A; 260/26  
**Survey Map:** Building 212  
**Construction Date:** 1962  
**Structural System:** Steel frame; concrete block  
**Survey Date:** 2007  
**Designer Name:** Lefebvre-Wiggins & Associates/Corps of Engineers, US Army,  
Office of the District Engineer, Chicago District, Chicago, Illinois

**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Light industrial  
**Cultural Affiliation:**  
**Resource Type:** Fire station at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 212 is located at 380 East 6<sup>th</sup> Avenue on the north side of East 6<sup>th</sup> Avenue at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. Building 212 is a single-story and high-bay rectangular-plan brick building that sits atop a concrete foundation. The single-story section shelters the administrative quarters of the fire station, and occupies the southern portion of the building, and is capped by a pitched flat roof. The roof cornice is sheathed in anodized aluminum. The single-story section is pierced by modern windows with concrete sills and metal doors. The high-bay section functions as the garage and occupies the northern portion of the building. Five modern metal roll-up garage doors face east toward Structure 7101 (Apron). Four modern metal roll-up garage doors face north toward East 6<sup>th</sup> Avenue.

### Statement of Significance

Building 212 was constructed in the early 1960s as the Fire & Crash Station for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. Designed by Lefebvre-Wiggins & Associates, the firm was hired by the US Army, Office of the District Engineer, Chicago District, the branch of the military that typically oversaw design and construction for military installations (Lefebvre-Wiggins & Associates/US Army Corps of Engineers [USACE], Chicago District, 1981).

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 212 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of

## **BUILDING 212**

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national policy. Building 212 has accommodated the fire station for the 440<sup>th</sup> AW since its construction in the 1960s, and has been enlarged through the 1980s to enable it to continually serve this function (Durrant Group Architects & Engineers/USACE Omaha District, 1981; Threshold Design, Inc., 1984; 440<sup>th</sup> Tactical Airlift Wing [TAW], 1989). Building 212 lacks architectural distinction, and therefore, is not eligible for listing in the National Register.

### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

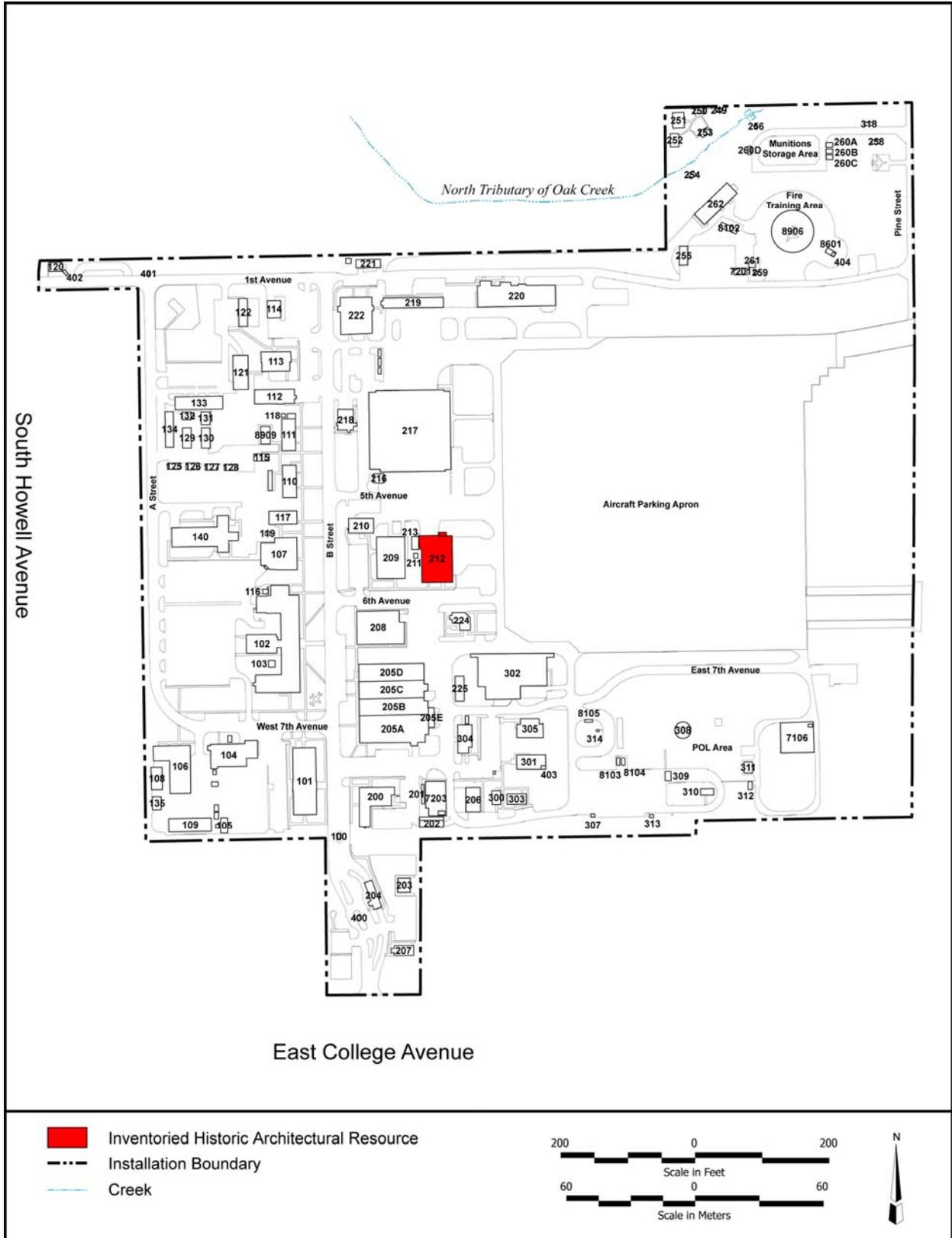
Durrant Group, Architects & Engineers/USACE Omaha District. "Addition to Fire Station-Building 212." Drawing No. 212-015. 1981. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Lefebvre-Wiggins & Associates/USACE Chicago District. "Fire & Crash Station-Building 212." Drawing No. 212-001. 1959. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Threshold Design, Inc. "Addition to Fire Station-Building 212." Drawing No. 212-050. 1984. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

440<sup>th</sup> TAW. "Addition to Fire Station-Building 212." Drawing No. 212-059. 1989. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 212



## BUILDING 212

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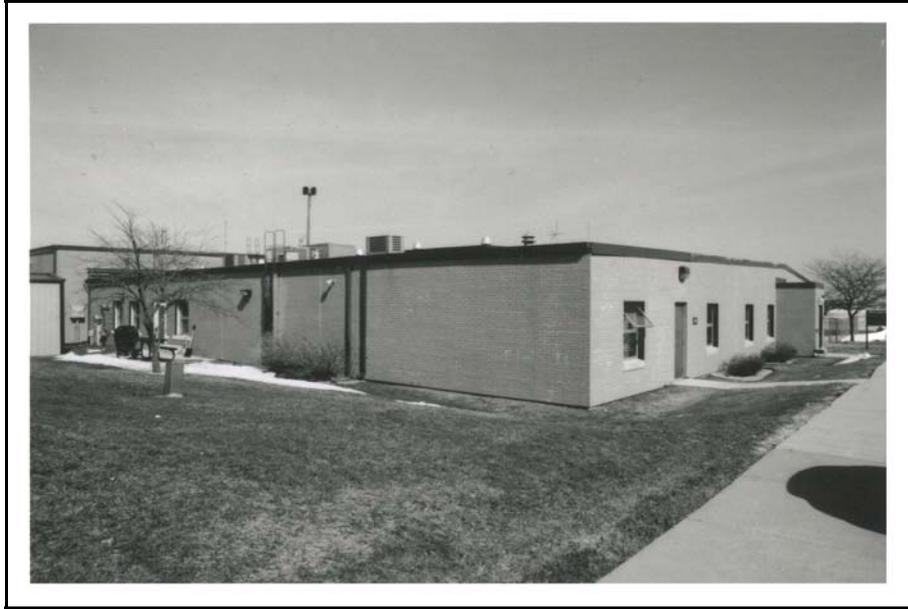


Photo 254/34A: View looking toward the south and west facades of Building 212 (Fire Station). Note brick facades lack architectural details.

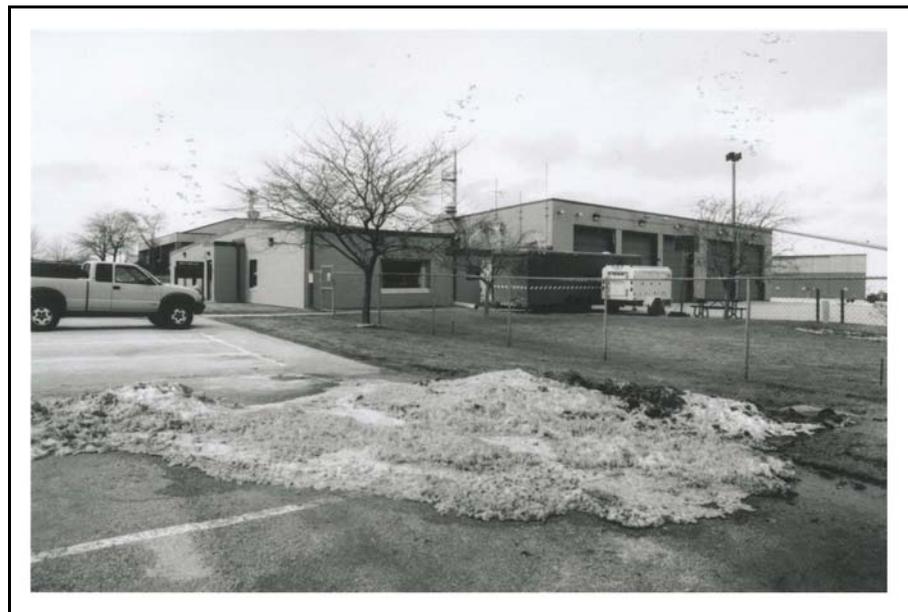


Photo 260/26: View looking toward south and east facades of Building 212. Note garage with modern roll-up doors.

## BUILDING 217

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
6036 South B Street  
**City or Village:** Milwaukee  
**Current Name:** Building 217 (Maintenance Hangar)  
**Historic Name:** Building 217 (Maintenance Hangar)  
**Wall Material:** Corrugated metal; metal siding over concrete masonry units  
**Map Code:** 255/10; 258/10; 259/35; 260/32  
**Survey Map:** Building 217  
**Construction Date:** 1956  
**Structural System:** Steel frame; concrete block  
**Survey Date:** 2007  
**Designer Name:** Gates Weiss & Kramer, Engineers & Architect, Milwaukee,  
Wisconsin/Corps of Engineers, US Army, Office of the District  
Engineer, Milwaukee, Wisconsin  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial building  
**Cultural Affiliation:**  
**Resource Type:** Hangar at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 217 is located at 6036 South B Street on the east side of the street General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. It is a two-and-a-half story square-plan hangar that sits atop a concrete base. It is capped by gable roof sheathed in corrugated metal. A rectangular lawn with rounded corners is located east of the hangar, bisected by concrete sidewalks. The lawn provides a buffer between the hangar and Structure 7101 (Apron). A mounted propeller from a Hercules C-130A aircraft is mounted as a display on the lawn.

The hangar is located on the west side of the apron. The north and south facades are dominated by massive bi-parting steel rolling doors that facilitate aircraft access. The doors, which were replaced in-kind in 1992, are set within corrugated-metal clad gable-front door frames. Metal panel-clad tail doors pierce the gable-front portion of the frame and facilitate aircraft tail access (Foth & VanDyke, 1992). The doors are identical in terms of appearance and mechanical opening systems to the original 1950s-era doors. On both facades, each half-door slides east or west respectively, and folds into pockets located at the northeast and southeast, and northwest and southwest corners of the door frame. The lower portion of the rolling doors is sheathed in metal panels. The upper portion of the rolling doors is sheathed in translucent panels to allow for daylighting of the hangar space. Each half-door unit is pierced by a manway door, resulting in two manway doors per facade.

The east and west facades of the hangar are dominated by shop lean-to structures. The shops are constructed of concrete block, sheathed in ribbed metal siding. The east façade is pierced by modern windows with fixed upper units and lower movable units. Access is provided by both modern roll-up and metal manway doors. The west façade has similar details to the east façade, but has no roll-up doors.

## **BUILDING 217**

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The interior of the hangar has several architectural features. The floor is concrete, buffed to a high shine. The gable roof is supported by a series of metal trusses. The 440<sup>th</sup> Airlift Wing (AW) Maintenance Squadron maintains a concrete block square-plan tool room at the eastern side of the interior space. The roof of the tool room accommodates storage shelves.

### **Statement of Significance**

Building 217 was constructed in 1956 as the Maintenance Hangar for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. Designed by the Milwaukee-based architecture and engineering Gates Weiss & Kramer, the firm was hired by the US Army, Office of the District Engineer, Milwaukee District, the branch of the military that typically oversaw design and construction for military installations (Gates Weiss & Kramer/US Army Corps of Engineers [USACE], Milwaukee District, 1955). Building 217 was initially built as the aircraft maintenance headquarters of the 2473<sup>rd</sup> Air Force Reserve Training Center (AFRTC), a fighter-bomber unit. One year after its completion in 1957, the unit was deactivated and eventually replaced by the 440<sup>th</sup> Troop Carrier Wing (TCW), and its mission shifted to airlift endeavors.

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 217 has played a key role in the history of the installation. From 1956 to the present, Building 217 has functioned as the primary maintenance hangar of the 440<sup>th</sup> TCW and its successor, the 440<sup>th</sup> Airlift Wing (AW). The 440<sup>th</sup> AW has assisted AFRES in fulfilling its airlift mission by providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy.

Between the late 1950s and early 1970s, the 440<sup>th</sup> AW flew and maintained the Fairchild C-119 Flying Boxcar from within Building 217. The aircraft was developed from the World War II-era Fairchild C-82 Packet which was designed to carry cargo, personnel, litter patients, and mechanized equipment, and to drop cargo and troops by parachute. During the 1960s, historic photographs and plans indicate that a second floor was built atop the lean-to structures on the west façade, augmenting the space of various squadrons that occupied the hangar (Schutte Phillips Mochon, Inc./USACE Chicago District, 1962). By 1975, a second hangar, Building 302 (Fuel Systems Maintenance Dock) was constructed to provide additional aircraft maintenance options for members of the 440<sup>th</sup> AW. In addition, during this period, the 440<sup>th</sup> AW's ability to achieve its mission was vastly improved when it was assigned a new, more powerful aircraft, the Lockheed C-130A Hercules to replace the C-119 Flying Boxcar which the unit had flown since its inception in 1957. The unit flew the C-130A until 1989, when it received factory-fresh C-130H aircraft which it continues to maintain within Building 217.

During the Cold War (1946-89) and later, multiple missions were launched from Building 217. These include a month-long deployment of the 440<sup>th</sup> TCW during the Cuban Missile Crisis in 1962, and from the 1970s-80s, multiple training missions within the US, including Alaska. Missions were also carried out abroad during this period in regions as varied as Central America, Europe, India, and Russia, to name a few. Multiple humanitarian missions were also initiated, including responses to natural disasters such as snowstorms and hurricanes. In the 1990s, deployment of the 440<sup>th</sup> AW to Operation Desert Shield and Operation Desert Storm set forth from Building 217. In the 2000s, deployments to Afghanistan and Guantanamo Bay, Cuba in support of the war on terror have also taken place, and recently, deployments to Iraq have also originated from this location (AFCEE, 2007).

## **BUILDING 217**

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Building 217 appears to be National Register eligible under Criteria A and C for its state and local historic significance, and its architectural design, respectively. Building 217 appears to be National Register eligible under Criterion A, history, because it remains as the key aircraft maintenance hangar at Wisconsin's only surviving AFRES installation. Since its construction in 1956, the national and international airlift activities of the 440<sup>th</sup> AW have been partially launched from this building. Building 217 also appears to be National Register-eligible under Criterion C, design. Conceived by Gates Weiss & Kramer under contract to the USACE Milwaukee District, it survives as a good example of a mid-20<sup>th</sup> century hangar erected at a federal military installation. Character-defining features include the massive sliding doors, the gable roof supported by metal truss-work and the lean-to structures, all typical of a military hangar. Although the hangar has been slightly altered, including in-kind replacement of hangar doors, the original appearance of the building has remained consistent. Building 217 retains integrity of location, design, setting, workmanship, feeling and association, and continues to maintain a prominent position on the west side of the apron where it has served General Mitchell IAP ARS since the 1950s.

The proposed National Register boundary conforms to the footprint of Building 217, and includes the paved area north and south of the hangar, and the rectangular shaped lawn and sidewalk network on the east façade which forms a buffer between the hangar and the apron. The mounted C-130A propeller on the east lawn is a non-contributing resource within the National Register boundary. Other non-contributing resources include Building 216 (Compressed Air Facility-Hangar (1994) located at the southwest corner of Building 217, and Buildings H 217B and H 217C (Aircraft Maintenance Hazmat Containers) located at the northwest corner of Building 217.

### **References**

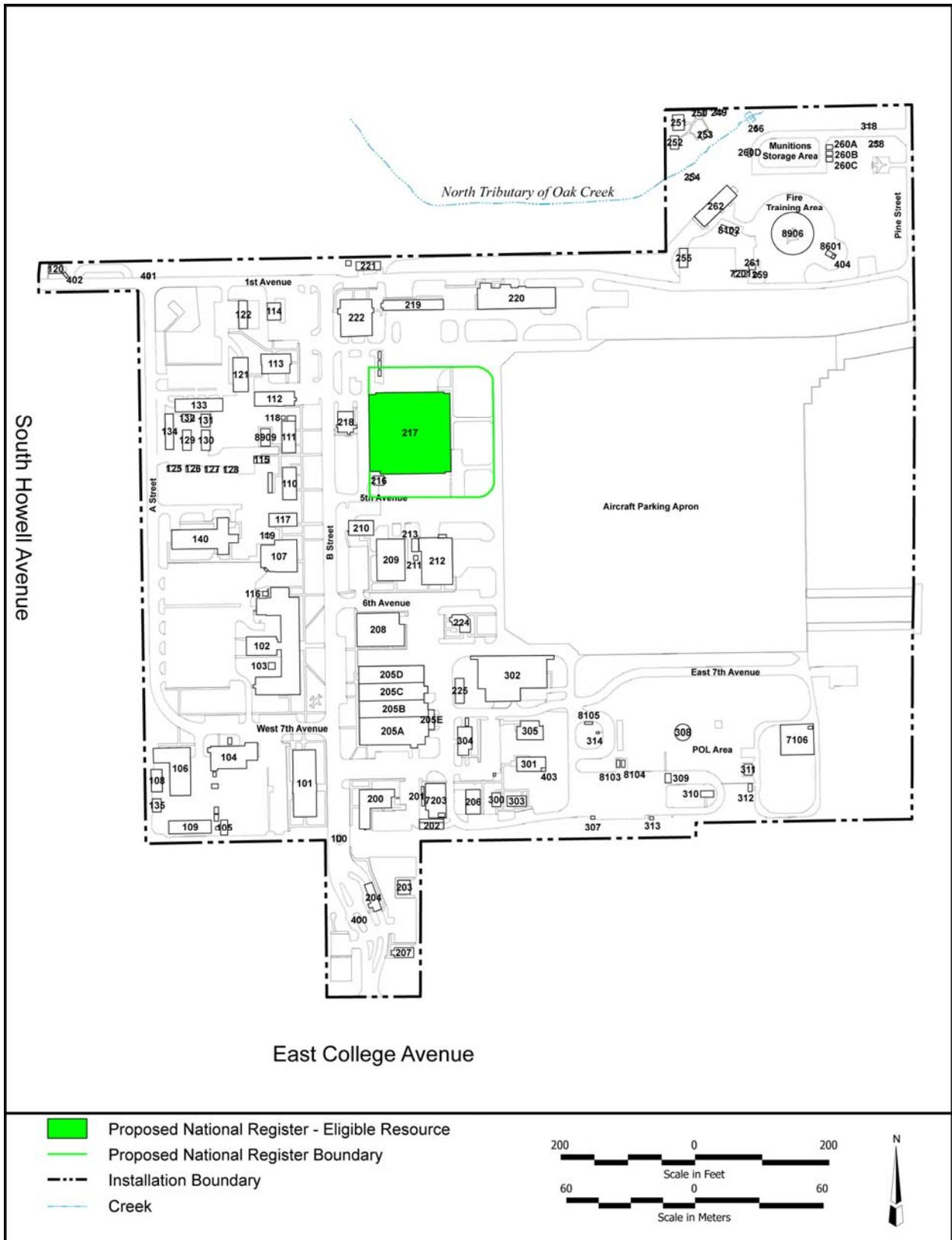
AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Foth & VanDyke. "Replacement of Maintenance Hangar Doors-Building 217." Drawing No. 217-165. 1992. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Gates Weiss & Kramer/USACE Milwaukee District. "Maintenance Hangar, Building 217." Drawing 217-001. 1955b. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

Schutte Phillips Mochon, Inc./USACE Chicago District. "Maintenance Hangar Addition-Building 217." Drawing No. 217-080. 1962. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 217



## BUILDING 217

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Photo 255/10: View looking toward south and east facades of Building 217 (Maintenance Hangar). Note sliding hangar doors with tail door in gable end. Note two-story lean-to structures that accommodate shops.



Photo 259/35: View looking toward north and east facades of Building 217. North façade features hangar door with similar details to south façade. Lawn flanks east façade and forms buffer between hangar and apron.

## BUILDING 217

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Photo 260/32: View looking toward south and west facades of Building 217. Note lean-to structure on the west façade has similar details to the lean-to structure on the east façade.



Photo 258/10: Interior of Building 217, looking north. Note ample space and gable roof supported by trusses.

## BUILDING 300

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
300 East College Avenue  
**City or Village:** Milwaukee  
**Current Name:** Building 300 (Reserve Forces General Training S)  
**Historic Name:** Building 300 (Pumping Station)  
**Wall Material:** Stucco over concrete masonry units  
**Map Code:** 256/5  
**Survey Map:** Building 300  
**Construction Date:** 1956, modified 1983  
**Structural System:** Concrete block  
**Survey Date:** 2007  
**Designer Name:** Corps of Engineers, US Army, Office of the District Engineer,  
Milwaukee, Wisconsin  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial building  
**Cultural Affiliation:**  
**Resource Type:** Classroom building at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 300 is located at 300 East College Avenue on the north side of 9<sup>th</sup> Avenue at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. Building 300 is a single-story, rectangular-plan, concrete block building that sits atop a concrete foundation. It is capped by a flat roof. The roof fascia is sheathed in anodized aluminum. The building is pierced by two industrial windows on the east and west facades, respectively. Access is gained by doors on the north and south facades.

### Statement of Significance

Building 300 was constructed in 1956 as the Pumping Station for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field, Milwaukee, Wisconsin. It was designed by the US Army Corps of Engineers (USACE), Milwaukee District, the branch of the military that typically oversaw design and construction for military installations (USACE Milwaukee District, 1955).

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 300 has played an evolving role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. For the first two-and-a-half decades of its existence, it functioned as the pump house for installation's reservoir, an independent water supply system that would enable the installation to remain open and active in the event of a major catastrophe. In the 1980s, the reservoir was closed and converted into an indoor arms range and as a result, Building 300 was converted into a training classroom. Building 300 has been altered over time, including a

## **BUILDING 300**

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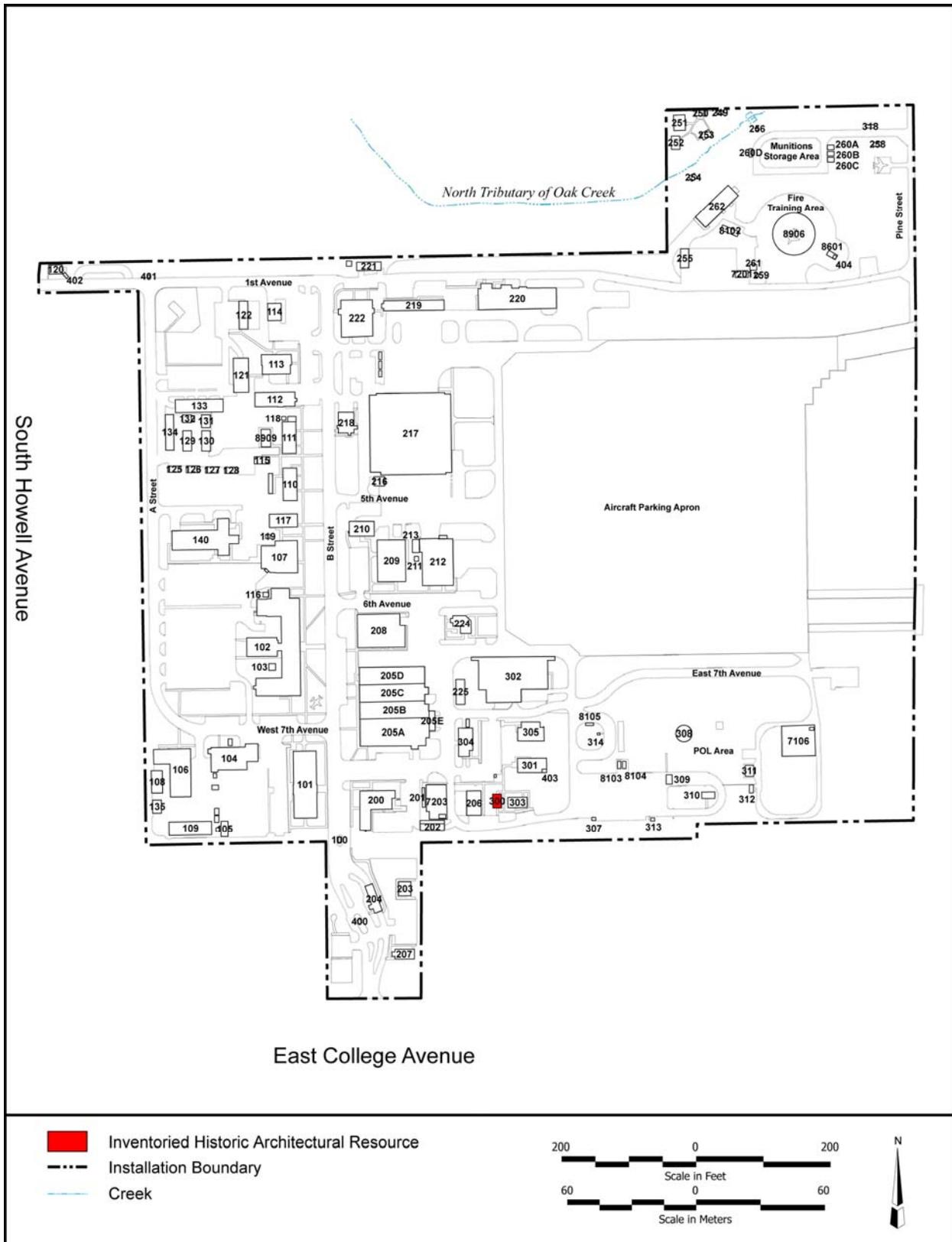
change in function. It lacks architectural distinction, and therefore, Building 300 is not eligible for listing in the National Register.

### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

USACE Milwaukee District. "Pumping Station-Building 300." Drawing No. 300-001. 1955. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 300



## BUILDING 300

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Photo 256/5: View looking toward south and west facades of Building 300 (Reserve Forces General Training S). Note stucco-clad facades and industrial windows. Building 300 is similar in form and original function to Building 120 (Fire Protection Pump House).

## BUILDING 301

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
300 East College Avenue  
**City or Village:** Milwaukee  
**Current Name:** Building 301 (Reservoir – Ground Storage)  
**Historic Name:** Building 301 (Indoor Small Arms Range)  
**Wall Material:** Concrete masonry units; earthen mound  
**Map Code:** 256/14; 256/18  
**Survey Map:** Building 301  
**Construction Date:** 1956; converted to Small Arms Range, 1983  
**Structural System:** Reinforced concrete  
**Survey Date:** 2007  
**Designer Name:** Department of the Army, Office of the Chief Engineer, Military  
Construction Engineering Division  
Washington, DC  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial  
**Cultural Affiliation:**  
**Resource Type:** Indoor small arms range at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 301 is located at 300 East College Avenue on the east side of C Street at General Mitchell International Airport (IAP) Air Reserve Station (ARS) in the City of Milwaukee, Milwaukee County, Wisconsin. Building 301 is a rectangular-plan, high-bay, reinforced concrete building that rests atop a concrete foundation. While the west façade is exposed and includes a concrete block enclosed vestibule entry, the north, south and east facades are covered by an earthen berm. Building 301 is capped by a flat roof that supports ventilation structures, and Building 403 (Force Protection-Small Arms), a small modern wood-frame guard booth located at the northeast corner of the roof which was constructed in 2001.

### Statement of Significance

Building 301 was constructed in 1956 as the reservoir for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field, Milwaukee, Wisconsin. It was built according to standard designs conceived by the Office of the Chief Engineer of the US Army (US Army Corps of Engineers [USACE], Washington, DC, 1955). During the early years of the Cold War (1946-89), the military constructed multiple installations to strengthen national defense and building structures according to standard plans saved time and money.

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 301 has played an evolving role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. For the first two-and-a-half decades of its existence, it functioned as the installation's reservoir, an independent water supply system that would enable the installation to

## **BUILDING 301**

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remain open and active in the event of a major catastrophe. The reservoir's pump house was located in Building 300 (Pumping Station). In the 1980s, the reservoir was closed and converted the indoor small arms range, and as a result, Building 300 was converted into a training classroom (Threshold Design, 1983). Building 301 has been altered over time, including a change in function. It lacks architectural distinction, and therefore, Building 301 is not eligible for listing in the National Register.

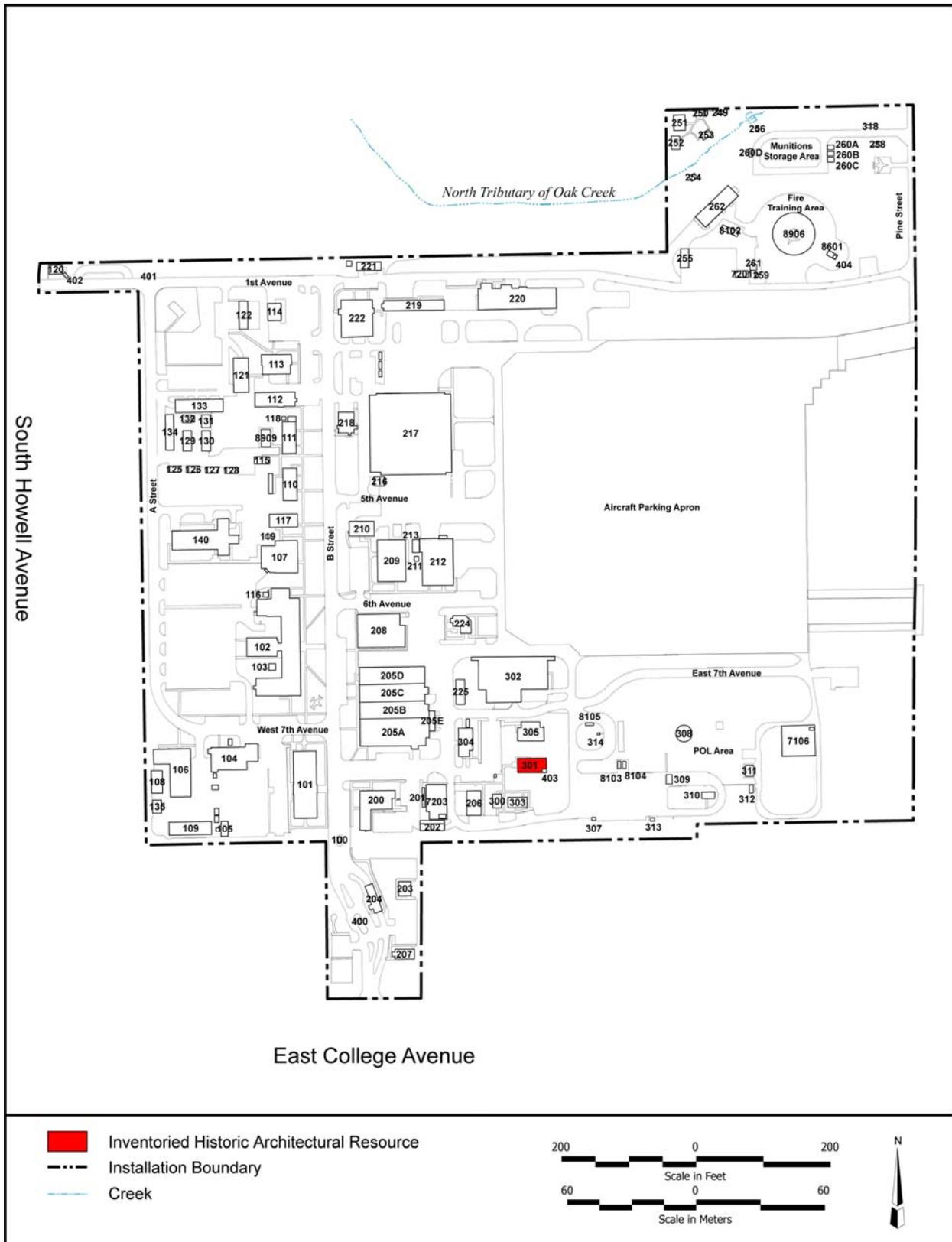
### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Threshold Design, Inc. "Small Arms Range-Building 301." Drawing No. 301-003. 1983. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

USACE Washington, DC. "Emergency-Type Construction, Reservoir-Ground Storage-Building 301." 1955. Drawing No. 301-001b. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 301



## BUILDING 301

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Photo 256/14: View looking toward south and west facades of Building 301 (Indoor Small Arms Range). Note concrete block structure evident on west façade. Building originally functioned as reservoir for installation.

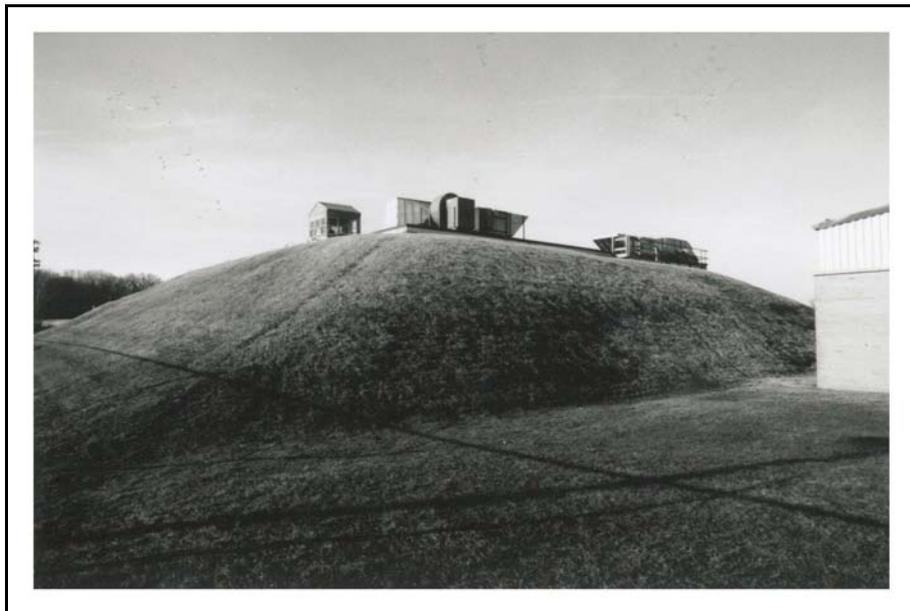


Photo 256/18: View looking toward north and east facades of Building 301. Facades are sheathed in earth berms, features originally associated with former reservoir.

## STRUCTURE 308

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
300 East College Avenue  
**City or Village:** Milwaukee  
**Current Name:** Structure 308 (Jet Fuel Storage Tank)  
**Historic Name:** Structure 308 (Jet Fuel Storage Tank)  
**Wall Material:** Steel  
**Map Code:** 257/19  
**Survey Map:** Building 308  
**Construction Date:** 1956; modified in 1983  
**Structural System:** Steel  
**Survey Date:** 2007  
**Designer Name:** Unknown  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial tank  
**Cultural Affiliation:**  
**Resource Type:** Tank at a Federal Military Installation

### Additional Comments:

### Physical Description

Structure 308 is located at 300 East College Avenue on the south side of East 7<sup>th</sup> Avenue in the Petroleum, Oil & Lubricants (POL) Area at General Mitchell IAP ARS. The round above-ground steel tank stores 400,000 gallons of jet fuel (Air Force Center for Environmental Excellence [AFCEE], 2007). It is painted white with black lettering that indicates "440<sup>th</sup> Airlift Wing Air Force Reserve." A spiral staircase wraps around a portion of the tank, and provides access to the tank top. The tank is situated in a concrete dyke. The dyke consists of a flat concrete floor surrounded by four battered concrete walls. A flight of concrete steps breaks the wall on the south side, and provides access to the dyke floor.

### Statement of Significance

Structure 308 was initially constructed in 1956 as the Jet Fuel Storage Tank for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field, Milwaukee, Wisconsin (440<sup>th</sup> Tactical Airlift Wing [TAW], 1975). As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for AFCEE in 2007, Structure 308 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of the AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. Structure 308 has fulfilled a fuel storage function in the POL Area for the 440<sup>th</sup> AW over time. Although the building's use has remained consistent over time, its historic integrity has been compromised. In 1983, the original tank and dyke were highly modified, including removal and replacement of the dyke with a new structure. Designs were developed by the US Army Corps of Engineers (USACE), Omaha District (USACE Omaha District, 1983). Therefore, Structure 308 is not eligible for listing in the National Register.

## STRUCTURE 308

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### References

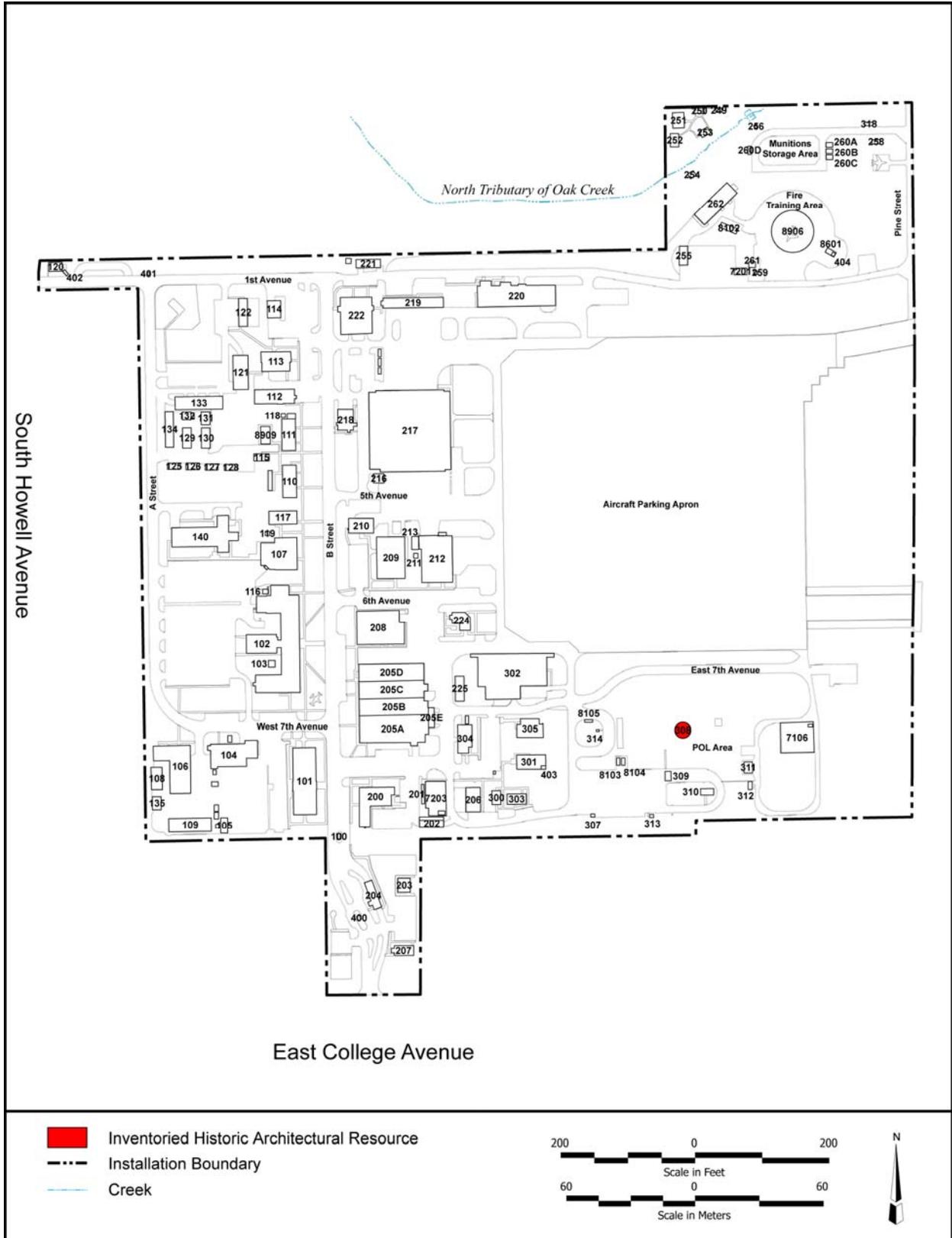
AFCEE. *Draft Environmental Baseline Survey, General Mitchell International Airport Air Reserve Station*. 2007.

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

USACE Omaha District. "Alter Jet Fuel Storage-Structure 308." Drawing No. 308-001-308-008. 1983. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

440<sup>th</sup> TAW. "General Plan, Horton Dome Tank." Structure 308. Drawing No. 308-001b. September 15, 1975. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# STRUCTURE 308



## STRUCTURE 308

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Photo 257/19: View looking northwest toward Structure 308 (Jet Fuel Storage Tank). Note that tank is located within concrete dyke with battered walls that protect the installation from potential tank leaks.

## STRUCTURE 309

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
300 East College Avenue  
**City or Village:** Milwaukee  
**Current Name:** Structure 309 (Jet Fuel Fill Stand, Truck)  
**Historic Name:** Structure 309 (Jet Fuel Storage & Dispensing)  
**Wall Material:** Steel  
**Map Code:** 257/4  
**Survey Map:** Structure 309  
**Construction Date:** 1956; modified in 1997  
**Structural System:** Steel  
**Survey Date:** 2007  
**Designer Name:** Gates Weiss & Kramer, Engineers & Architect, Milwaukee,  
Wisconsin/Corps of Engineers, US Army, Office of the District  
Engineer, Milwaukee, Wisconsin  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial  
**Cultural Affiliation:**  
**Resource Type:** Fill Stand at a Federal Military Installation

### Additional Comments:

### Physical Description

Structure 309 is located at 300 East College Avenue on the south side of East 7<sup>th</sup> Avenue at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. It is located in the Petroleum, Oil & Lubricants (POL) Area. It consists of a ribbed metal gable-shaped canopy supported by four metal posts. An intermediate slab is located at the center of the posts and supports two rectangular objects related to fuel dispensing. Fuel pumps are located at the ground level and are equipped with apparatus to dispense fuel to fuel trucks.

### Statement of Significance

Structure 309 was initially constructed in 1956 as the Jet Fuel Fill Stand, Truck for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field, Milwaukee, Wisconsin. It was designed by Gates Weiss & Kramer, a Milwaukee-based firm for the US Army Corps of Engineers (USACE), Milwaukee District, the branch of the military that typically oversaw design and construction of military installations (Gates Weiss & Kramer/USACE Milwaukee District, 1955).

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Structure 309 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. Structure 309 has fulfilled a fuel pumping function in the POL Area for the 440<sup>th</sup> AW over time. Although the building's use has remained consistent over time, its historic integrity has been compromised. In 1997, the original structure was altered according to designs

## **STRUCTURE 309**

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prepared by GEC Design Group of Chicago (GEC Design Group, 1997). Therefore, Structure 309 is not eligible for listing in the National Register.

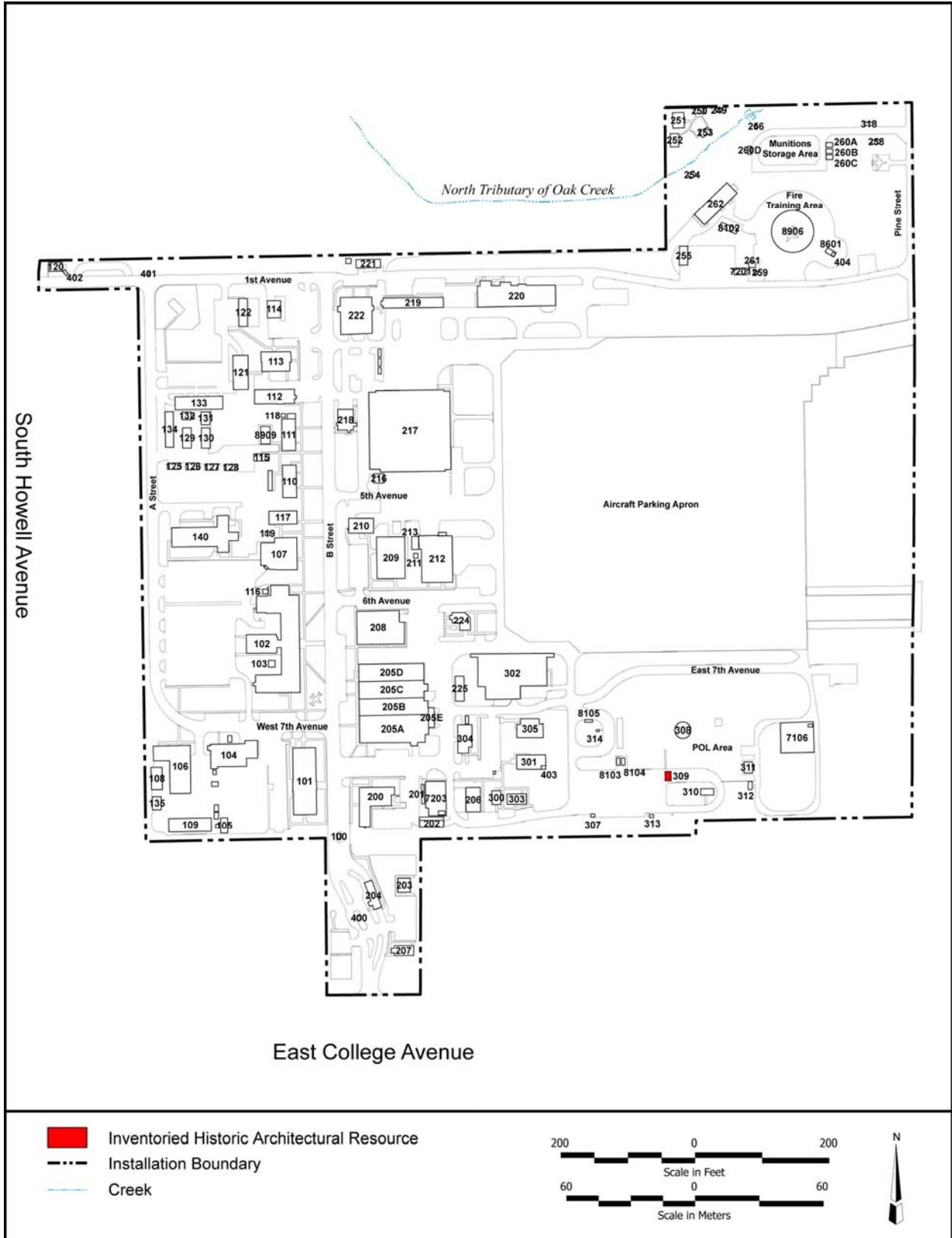
### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Gates Weiss & Kramer/USACE Milwaukee District. "Jet Fuel Storage & Dispensing Structural Loading Dock." Structure 309. Drawing No. 309-001. 1955. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

GEC Design Group. "Alter Truck Fill Stand-Structure 309." Drawing No. 309-002. 1997. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# STRUCTURE 309



## STRUCTURE 309

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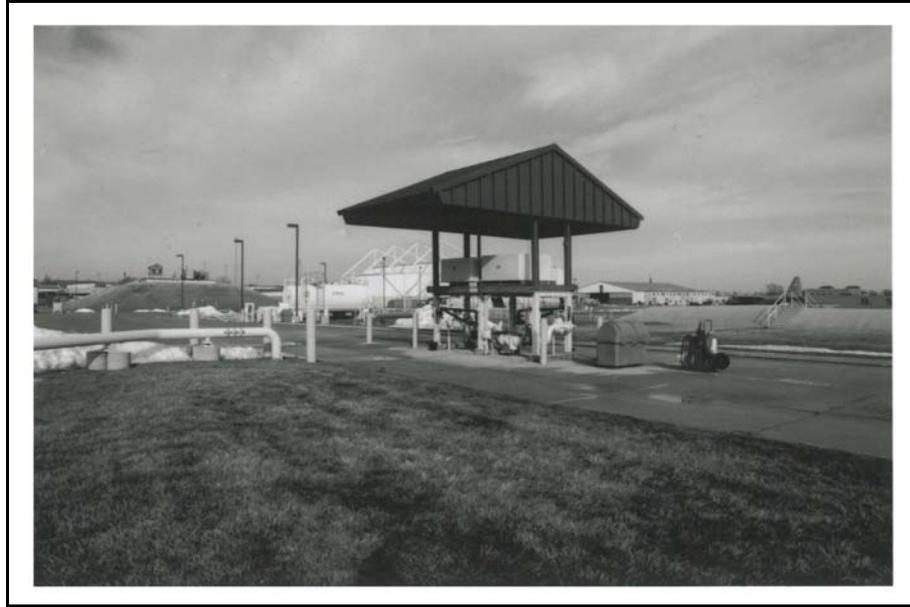


Photo 257/4: View looking west toward Structure 309 (Jet Fuel Fill Stand, Truck). Gable structure shelters fuel pump apparatus for trucks.

## BUILDING 310

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
300 East College Avenue  
**City or Village:** Milwaukee  
**Current Name:** Building 310 (Pump Station, Landing Field)  
**Historic Name:** Building 310 (Jet Fuel Pump House)  
**Wall Material:** Stucco over concrete masonry units  
**Map Code:** 257/7  
**Survey Map:** Building 310  
**Construction Date:** 1956  
**Structural System:** Concrete block  
**Survey Date:** 2007  
**Designer Name:** Gates Weiss & Kramer, Engineers & Architect, Milwaukee,  
Wisconsin/Corps of Engineers, US Army, Office of the District  
Engineer, Milwaukee, Wisconsin  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial  
**Cultural Affiliation:**  
**Resource Type:** Pump station at a Federal Military Installation

### Additional Comments:

### Physical Description

Building 310 is located at 300 East College Avenue on the south side of East 7<sup>th</sup> Avenue in the Petroleum, Oil & Lubricants (POL) Area at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. It is a single-story, rectangular-plan, concrete block building that rests atop a concrete foundation. It is capped by a flat roof with a cornice sheathed in anodized aluminum. It is pierced by modern industrial windows and doors. It shelters fuel pumps that pump jet fuel to Structure 309 (Jet Fuel Fill Stand, Truck) located northwest of the building. An above-ground pipe extends from the lower portion of the north façade into the ground.

### Statement of Significance

Building 310 was constructed in 1956 as the Jet Fuel Pump Station for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field, Milwaukee, Wisconsin. It was designed by Gates Weiss & Kramer, a Milwaukee-based firm for the US Army Corps of Engineers (USACE), Milwaukee District, the branch of the military that typically oversaw design and construction of military installations (Gates Weiss & Kramer/USACE Milwaukee District, 1955).

As described in the *Historic Building Inventory and Evaluation, General Mitchell IAP ARS* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Building 310 has played a standard role in the history of the installation which has been home to the 440<sup>th</sup> Airlift Wing (AW) since 1957, a unit of AFRES dedicated to providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy. Building 310 has fulfilled a fuel pumping function in the POL Area for the 440<sup>th</sup> AW over time. Although the building's use has remained consistent over time, its historic integrity has been compromised by

## **BUILDING 310**

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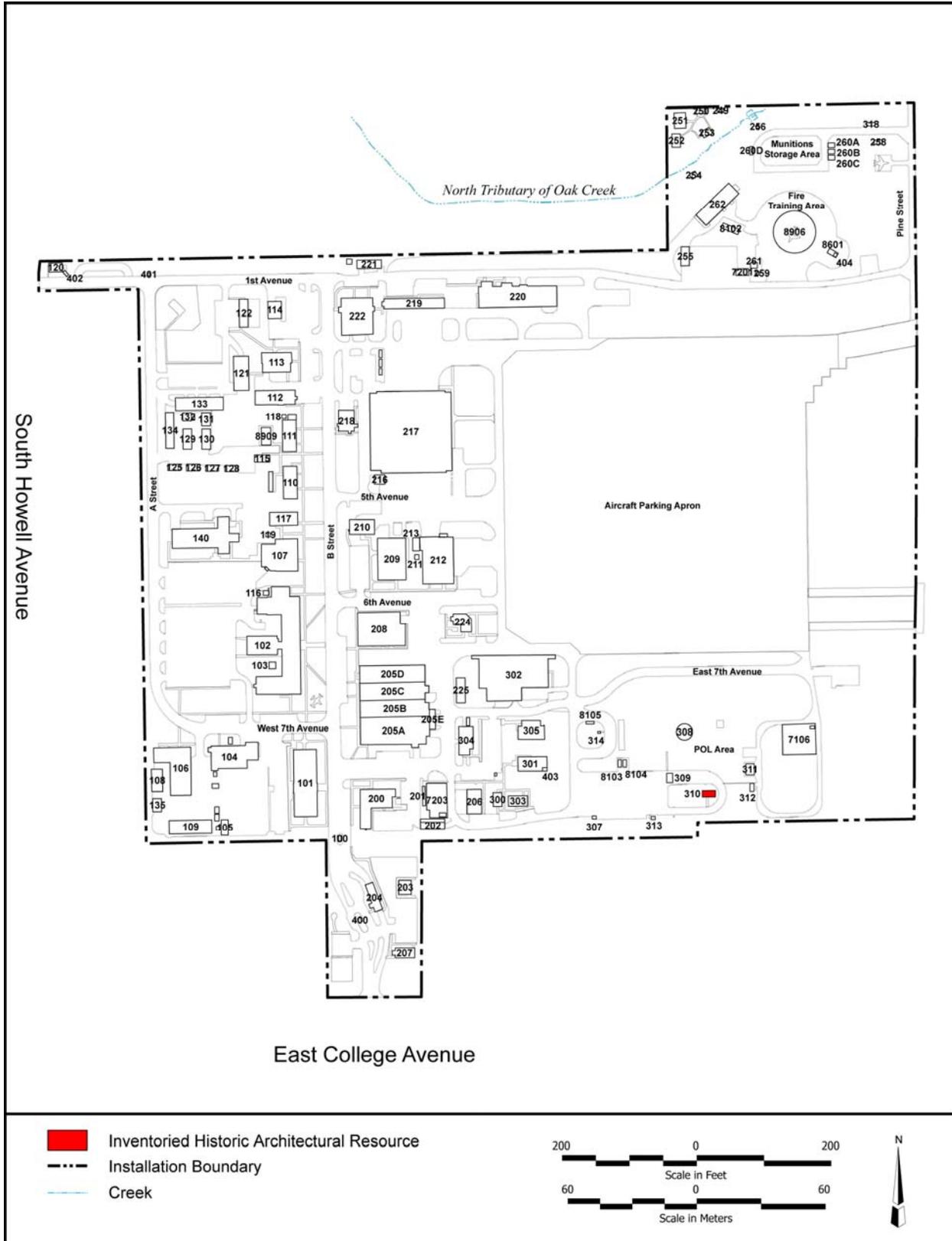
the insertion of modern windows and stucco cladding. Therefore, Building 310 is not eligible for listing in the National Register.

### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

Gates Weiss & Kramer/USACE Milwaukee District. "Jet Fuel Pump House-Building 310." Drawing No. 310-004. 1955d. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# BUILDING 310



## BUILDING 310

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Photo 257/7: View looking toward south and east facades of Building 310 (Pump Station, Landing Field). Note stucco facades and industrial windows.

## STRUCTURES 7101 AND 7102

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**County:** Milwaukee  
**Record #:**  
**Location:** General Mitchell International Airport (IAP)  
Air Reserve Station (ARS)  
300 East College Avenue  
**City or Village:** Milwaukee  
**Current Name:** Apron (Structure 7101) and Taxiway (Structure 7102)  
**Historic Name:** Apron (Structure 7101) and Taxiway (Structure 7102)  
**Wall Material:** N/A  
**Map Code:** Structure 7101: 255/21; 255/23;  
Structure 7102: 255/27  
**Survey Map:** Structures 7101 and 7102  
**Construction Date:** 1956  
**Structural System:** Concrete pavement  
**Survey Date:** 2007  
**Designer Name:** DeLeuw Cather & Company, Chicago, Illinois/Corps of Engineers,  
US Army, Office of the District Engineer, Milwaukee, Wisconsin  
**Other Buildings on Site:** Administrative and maintenance buildings; hangars and apron  
**Style or Form:** Industrial  
**Cultural Affiliation:**  
**Resource Type:** Apron and taxiway

### Additional Comments:

### Physical Description

Structures 7101 (Apron) and 7102 (Taxiway) are located at 300 East College Avenue at General Mitchell IAP ARS in the City of Milwaukee, Milwaukee County, Wisconsin. Structure 7101 is a square-shaped apron that dominates the eastern portion of the installation and encompasses 106,868 square yards. It provides parking space for the C-130H Hercules aircraft flown by the 440<sup>th</sup> Airlift Wing (AW) and forms an intermediate space between the installation and the runway system at General Mitchell IAP. Multiple aviation-related buildings and structures surround the hangar, including Building 217 (Maintenance Hangar) to the west, Building 302 (Fuel Systems Maintenance Dock) to the southwest, the Petroleum, Oil & Lubricants (POL) Area to the south, and firefighting training facilities to the northeast.

The apron is constructed of multiple square concrete panels, many of which have been replaced over time. The restricted area of the apron is demarcated by a red-painted stripe along the west edge of the apron, past which passage is regulated. Two taxiways extend from the eastern edge of the apron: Structure 7102, the original taxiway, and a new taxiway that was built between 2004-06.

Structure 7102 is located at the northeast corner of the apron and provides access to Runway 1-19R at General Mitchell IAP. The taxiway is constructed of square concrete panels similar to the apron. The southwest corner of the taxiway conforms to a stepped pattern, indicating a gradual transition between the surface of the taxiway and the surface of the apron. Yellow striping on the taxiway regulates air traffic.

## STRUCTURES 7101 AND 7102

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### Statement of Significance

Structures 7101 and 7102 were constructed in 1956 as the original apron and taxiway for the US Air Force Reserve (AFRES) installation at General Billy Mitchell Field in Milwaukee, Wisconsin. Designed by the Chicago-based engineering firm, DeLeuw Cather & Company, the firm was hired by the US Army, Office of the District Engineer, Chicago District, the branch of the military that typically oversaw design and construction for military installations (DeLeuw Cather & Company/US Army Corps of Engineers [USACE], Chicago District, 1955). Structures 7101 and 7102 were initially built as the apron and taxiway for the 2473<sup>rd</sup> Air Force Reserve Training Center (AFRTC), a fighter-bomber unit. One year after its completion in 1957, the unit was deactivated and eventually replaced by the 440<sup>th</sup> Troop Carrier Wing (TCW) and its mission shifted to airlift endeavors.

As described in the *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station* prepared for the Air Force Center for Environmental Excellence (AFCEE) in 2007, Structures 7101 and 7102 have played a standard role in the history of the installation. From 1956 to the present, they have functioned as the apron and original taxiway of the 440<sup>th</sup> TCW and its successor, the 440<sup>th</sup> Airlift Wing (AW). The 440<sup>th</sup> AW has assisted AFRES in fulfilling its airlift mission by providing air transport and airlift for deploying troops, cargo, and humanitarian aid in support of national policy.

Between late 1950s to early 1970s, the 440<sup>th</sup> AW flew the Fairchild C-119 Flying Boxcar, and parked the aircraft on Structure 7101, while accessing Runway 1-19R at General Billy Mitchell Field from Structure 7102. The aircraft was developed from the World War II-era Fairchild C-82 Packet which was designed to carry cargo, personnel, litter patients, and mechanized equipment, and to drop cargo and troops by parachute.

The 440<sup>th</sup> AW was able to use the runway system at the commercial airport because it had entered into a long-term lease agreement with Milwaukee County to facilitate such activities. According to historic photos, in the 1960s, Milwaukee County extended Runway 1-19R south of Structure 7102. With this improvement, the 440<sup>th</sup> AW was able to construct a second taxiway that extended southeast from the eastern edge of Structure 7101 to access the extended portion of the runway. Thus, between 1969-79, Structure 7103 was erected for this purpose.

During the early 1970s, the 440<sup>th</sup> AW's ability to achieve its mission was vastly improved when it was assigned a new, more powerful aircraft, the Lockheed C-130A Hercules to replace the C-119 Flying Boxcar which the unit had flown since its inception in 1957. The unit flew the C-130A until 1989, when it received factory-fresh C-130H aircraft. Over time, these aircraft have used Structures 7101 and 7102 to for parking and taxiway purposes.

During the Cold War (1946-89) and later, multiple missions were launched from Structures 7101 and 7102. These included a month-long deployment of the 440<sup>th</sup> TCW during the Cuban Missile Crisis in 1962, and from the 1970s-80s, multiple training missions within the US, including Alaska. Missions were also carried out abroad during this period in regions as varied as Central America, Europe, India and Russia, to name a few. Multiple humanitarian missions were also initiated, including responses to natural disasters such as snowstorms and hurricanes. In the 1990s, deployment of the 440<sup>th</sup> AW to Operation Desert Shield and Operation Desert Storm set forth from Structures 7101 and 7102. In the 2000s, deployments to Afghanistan and Guantanamo Bay, Cuba in support of the war on terror have also taken place, and recently, deployments to Iraq have also originated from this location. After 2004, Structure 7103 was

## **STRUCTURES 7101 AND 7102**

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removed and replaced with a new taxiway that extended directly east to link Structure 7101 with Runway 1-19R (AFCEE, 2007).

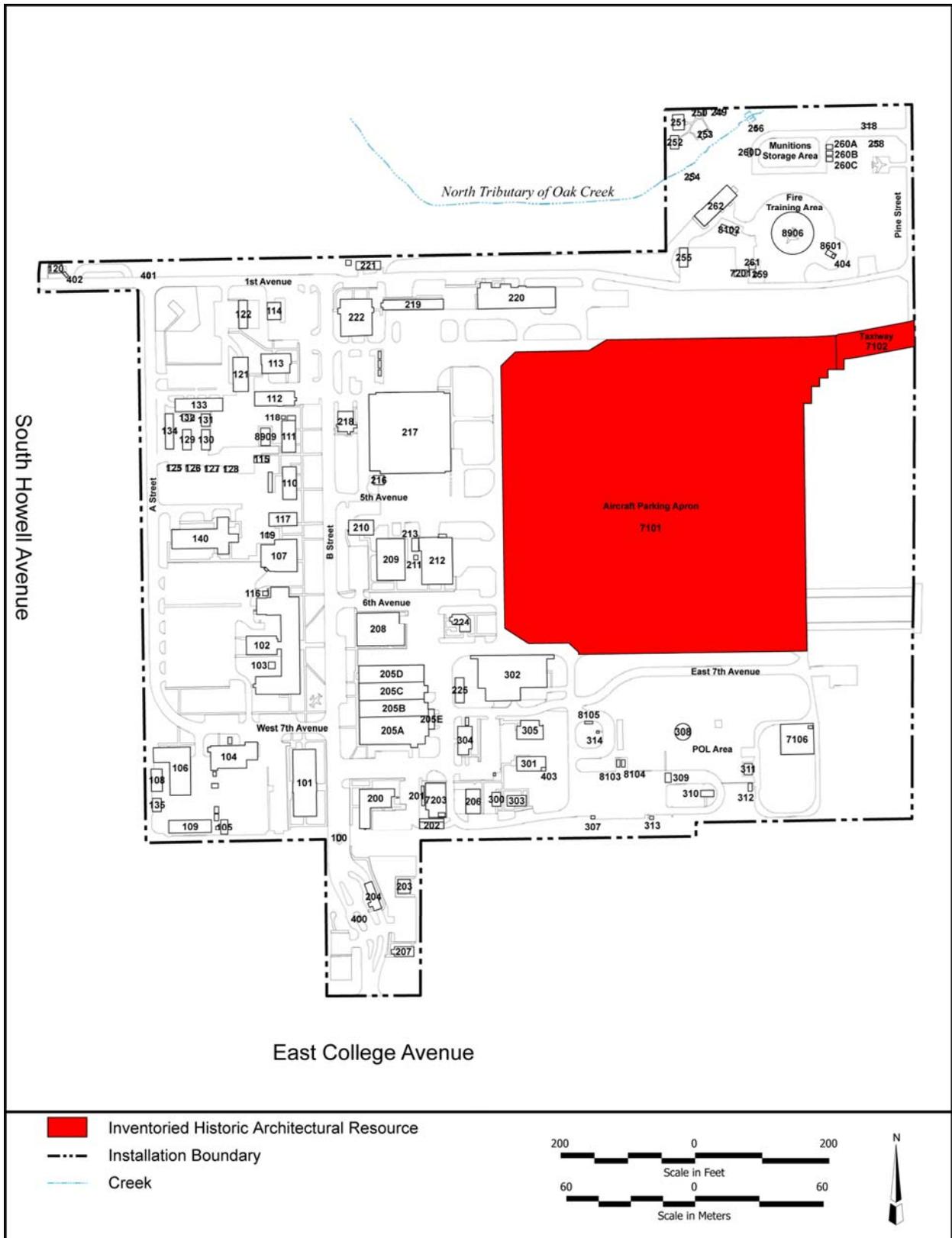
Structures 7101 and 7102 represent standard airfield design and lack innovative features. The apron and associated taxiway form part of the larger airfield at General Mitchell IAP, and are just one of many features that define the airfield. Other components include the runways, taxiways and aprons of the international airport itself, and the 128<sup>th</sup> Air Refueling Wing. Structures 7101 and 7102 are commonplace and lack distinction. Therefore, the structures are not eligible for listing in the National Register.

### **References**

AFCEE. *Historic Building Inventory and Evaluation, General Mitchell International Airport Air Reserve Station*. 2007.

DeLeuw, Cather & Company/USACE Milwaukee District. "Paving Layout, Taxiway & Apron." Structures 7101 and 7102. Drawing No. 7101-002. 1955. On file at Building 106 (Civil Engineering), General Mitchell IAP ARS, Milwaukee, Wisconsin.

# STRUCTURES 7101 AND 7102



## STRUCTURES 7101 AND 7102

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### STRUCTURE 7101



Photo 255/21: View looking southeast across Structure 7101 (Apron). Note Hercules C-130H aircraft parked on ramp.



Photo 255/23: View looking northeast across Structure 7101 (Apron). Note installation fire training facilities in background.

## STRUCTURES 7101 AND 7102

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### STRUCTURE 7102



Photo 255/27: View looking east across Structure 7102 (Taxiway) toward Runway 1-19R at General Mitchell International Airport. Structure 7102 is the original taxiway that linked General Mitchell IAP ARS to runway system.