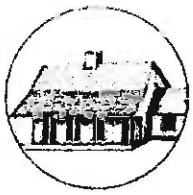
Page 1

☐ Original
☒ Update



HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Reset Form

Site #8 BR02004
Field Date 5-13-2013
Form Date 7-30-2013
Recorder #

Site Name(s) (address if none) First Wash Building — Multiple Listing (DHR only)
Survey Project Name Survey of NASA-Owned Facilities CCAFS Ind. Area — Survey # (DHR only)
National Register Category (please check one) ☒building ☐structure ☐district ☐site ☐object
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☒federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

Clear Location Values

Street Number	Direction	Street Name	Street Type	Suffix Direction
Bldg. 66242		Hangar	Road	

Address
Cross Streets (nearest / between) Industrial Bypass Road
USGS 7.5 Map Name CAPE CANAVERAL — USGS Date 1976 — Plat or Other Map
City / Town (within 3 miles) Cape Canaveral — In City Limits? ☐yes ☐no ☐unknown — County Brevard
Township 23S — Range 37E — Section 13 — ¼ section: ☐NW ☐SW ☐SE ☐NE — Irregular-name:
Tax Parcel # — Landgrant
Subdivision Name — Block — Lot
UTM Coordinates: Zone ☐16 ☒17 — Easting 540353 — Northing 3151182
Other Coordinates: X: — Y: — Coordinate System & Datum
Name of Public Tract (e.g., park) Cape Canaveral Air Force Station (CCAFS)

HISTORY

Clear History Values

Construction Year: 1979 ☐approximately ☐year listed or earlier ☐year listed or later
Original Use Other — From (year): — To (year):
Current Use Abandoned/Vacant — From (year): — To (year):
Other Use SRB processing — From (year): — To (year):
Moves: ☐yes ☒no ☐unknown — Date: — Original address
Alterations: ☐yes ☒no ☐unknown — Date: — Nature
Additions: ☐yes ☒no ☐unknown — Date: — Nature
Architect (last name first): Sverdrup & Parcel and Assoc. — Builder (last name first): unkonwn
Ownership History (especially original owner, dates, profession, etc.) NASA is the original and current owner.
Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☒no ☐unknown Describe

DESCRIPTION

Clear Description Values

Style Industrial Vernacular — Exterior Plan Rectangular — Number of Stories 1
Exterior Fabric(s) 1. Concrete block — 2. — 3.
Roof Type(s) 1. Flat — 2. — 3.
Roof Material(s) 1. Built-up — 2. — 3.
Roof secondary strucs. (dormers etc.) 1. — 2.
Windows (types, materials, etc.) See continuation sheet.
Distinguishing Architectural Features (exterior or interior ornaments) See continuation sheet.
Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) See continuation sheet.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date Init. KEEPER – Determined eligible: ☐yes ☐no Clear Check Boxes Date NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HISTORICAL STRUCTURE FORM

Site #8 BR02004

DESCRIPTION (continued)

Clear Description Values

Chimney: No.____ Chimney Material(s): 1. _____ 2. _____

Structural System(s): 1. Concrete block 2. _____ 3. _____

Foundation Type(s): 1. Slab 2. _____

Foundation Material(s): 1. Poured Concrete Footing 2. _____

Note: you may use the last box in each field to type in an answer that does not appear in the list provided

Main Entrance (stylistic details) single-light pedestrian entrance

Porch Descriptions (types, locations, roof types, etc.) N/A

Condition (overall resource condition): ☐excellent ☒good ☐fair ☐deteriorated ☐ruinous

Narrative Description of Resource This is a one-story car-wash type building with three sections: a central closed pump/equipment room flanked by two open wash bays. See continuation sheet.

Archaeological Remains Not Applicable ☐Check if Archaeological Form Completed

RESEARCH METHODS (check all that apply)

☒FMSF record search (sites/surveys)	☒library research	☐building permits	☐Sanborn maps
☐FL State Archives/photo collection	☐city directory	☒occupant/owner interview	☐plat maps
☐property appraiser / tax records	☒newspaper files	☐neighbor interview	☐Public Lands Survey (DEP)
☒cultural resource survey (CRAS)	☒historic photos	☒interior inspection	☒HABS/HAER record search

☐other methods (describe) _____

Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed) SRB Disassembly and Refurbishment Complex HAER Documentations FL-8-11-s and FL-8-11-S-3. See continuation sheets.

OPINION OF RESOURCE SIGNIFICANCE

Clear Significance Values

Appears to meet the criteria for National Register listing individually? ☐yes ☒no ☐insufficient information

Appears to meet the criteria for National Register listing as part of a district? ☒yes ☐no ☐insufficient information

Explanation of Evaluation (required, whether significant or not; use separate sheet if needed) The First Wash Building is a contributing resource in the NRHP-eligible SRB Disassembly and Refurbishment Complex Historic District, and also contributes to the larger NASA-owned CCAFS Industrial Area Historic District. See continuation sheet.

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)

1. Other
2. Science
3. Engineering
4. Transportation
5. _____
6. _____

DOCUMENTATION

Clear Documentation Values

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type Photographs — Maintaining organization National Aeronautics and Space Administration
Document description HAER Documentation and Narrative — File or accession #'s http://mediaarchive.ksc.nasa.gov/search

2) Document type Photographs — Maintaining organization National Park Service, Region One
Document description Hangar AF — File or accession #'s HAER No. FL-8-11-S and FL-8-11-S-3

RECORDER INFORMATION

Recorder Name David L. Price — Affiliation New South Associates

Recorder Contact Information (address / phone / fax / e-mail) 118 S. 11th St. Nashville, TN 37206; dprice@newsouthassoc.com; 615-262-4326

Required Attachments

❶ USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED

❷ LARGE SCALE STREET, PLAT OR PARCEL MAP (available from most property appraiser web sites)

❸ PHOTO OF MAIN FACADE, ARCHIVAL B&W PRINT OR DIGITAL IMAGE FILE

If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable). Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

DESCRIPTION OF RESOURCE:

The First Wash Building is a one-story car-wash type building that was used to give the Solid Rocket boosters (SRBs) an initial water hydrolase wash before proceeding to other steps in the refurbishment process. The building has a rectangular floor plan in three sections: a central closed pump/equipment room flanked by two open wash bays. The roof is composed of precast pre-stressed hollow core concrete slabs. The roof slabs are slightly pitched over the north wash bay to create a slope for water runoff.

The exterior of the building is composed of its exposed structural system of load-bearing concrete block panels separated by 16″ x 16″ precast concrete pilasters. These pilasters create an arrangement of eight wall sections on the west and east elevations, and four wall sections on the north and south elevations. The west and east elevations have identical arrangements of open wash bays on their north and south ends, with the enclosed pump/equipment room in between. At the building roofline on the west and east elevations, the pilasters rise to join cantilevered concrete beams, which originally held sliding horizontal bay doors. Each wash bay is accessible by two metal roll-up doors, along with four pedestrian entrance doors, one on each building elevation.

The central enclosed pump/equipment room is accessed by exterior pedestrian entrance doors and an interior metal roll-up door on the west elevation. There are also interior pedestrian doors that lead from the wash bays into the pump/equipment room. The building has no windows. There is a one-story equipment "lean-to" on the north elevation of the building. The First Wash Building originally had four specially designed horizontal sliding doors that were replaced at an unknown date with standard motor-operated, rolling steel doors. The original doors featured large main panels that opened and closed to allow the SRBs entry into the interior workspace. These doors also contained smaller, secondary sliding doors that covered circular openings with a diameter that matched that of the SRBs.

Each of the building's wash bays has concrete block walls and concrete ceilings and floors. In between the rail car tracks on the floor of each bay is a linear metal water drain covered with a metal filter grate. Wastewater and Thermal Protection System (TPS) material flowed into these drains into the first of two sumps that pumped it over a mechanical roll filter to remove TPS solids. The water then flowed into a second sump that pumped it through paper cartridge filters. The water was then filtered a third time with chemicals before being pumped into an aboveground storage tank located just north of the First Wash Building. The walls of each bay in the building are mounted with high-pressure plumbing pipes and fixtures that serve the hydrolase equipment. The interior of the pump/equipment room contains three high-pressure water pumps, one serves the south bay, one the north bay, and the third is a stand-by pump.

EXPLANATION OF EVALUATION:

The First Wash Building was built in 1979 to aid in the refurbishment of the Space Shuttle's SRBs. The SRBs were moved from the SRB Recovery Slip on rail cars into the First Wash Building for a high-pressure hydrolase water wash at 20,000 pounds of pressure per square inch. The boosters were hydrolased with both overhead spray bars and by manual hydrolase guns,

which removed approximately 90 percent of their TPS. The wastewater is collected in a series of drains, sumps, and filters before it is cleaned and stored in an adjacent aboveground tank for future use. While in the First Wash Building, the boosters' exit cones were removed and inspected. The exit cones were then shipped back to their manufacturer, a defense and aerospace company in Utah called ATK, for refurbishment.

The entire Hangar AF Complex (SRB Disassembly and Refurbishment Historic District) functioned as a one-of-a-kind facility that is considered eligible for listing in the National Register of Historic Places (NRHP) in the context of the Space Shuttle Program (SSP) (1969-2011) under Criterion A in the area of Space Exploration. The complex is a significant historic property for its association with the Space Transportation System (STS), commonly known as the "space shuttle." The STS was a unique breakthrough in the history of the U.S. Space Program, because it was based on a design that made most of its major components re-usable, a model that decreased program costs, and helped make orbital space flight a routine endeavor. Along with the orbiter spacecraft, the SRBs were two of the shuttle's primary re-usable elements. The SRBs' re-usability was made possible by a number of facilities at Kennedy Space Center (KSC) and CCAFS, including the SRB Disassembly and Refurbishment Complex. The complex is the first place to which the SRBs were brought after their recovery from sea and where they were disassembled, cleaned, and processed before they were moved to other KSC facilities for buildup and assembly. Because it achieved significance within the past 50 years, Criteria Consideration G also applies. The First Wash Building, as one component of this complex, is considered a contributing resource to the SRB Disassembly and Refurbishment Historic District as it played an essential role in the re-usability of the SRBs.

BIBLIOGRAPHIC REFERENCES:

Photographs and Drawings

Sverdrup & Parcel and Associates. "Solid Rocket Booster Recovery & Disassembly Facility, Hangar AF, CCAFS, Industrial Area." Kennedy Space Center, Florida. Construction drawings, 1977.

Kennedy Space Center.
Photograph negative number 116-KSC-373c-548/16. 1973. On file at Kennedy Space Center Archives.

Photograph negative number 108-KSC-378C-203/3. 1978. On file at Kennedy Space Center Archives.

Photograph negative number 108-KSC-81PC-459. 1983. On file at Kennedy Space Center Archives.

Photograph negative number 116-KSC-383C-1256. 1983. On file at Kennedy Space Center Archives.

Photograph negative number 108-KSC-378C-759. 1978. On file at Kennedy Space Center Archives.

Photograph negative number 108-KSC-379C-1060/1. 1979. On file at Kennedy Space Center Archives.

Interviews

Christy, Howard, RPSF Manager, Personal Communication, February 24, 2010.

Morales, Art. George C. Marshall Space Flight Center
Office of the Director Shuttle - ARES Transition Office. Interview with author. September 27, 2011.

Price, David. Hangar AF Facility Manager, United Space Alliance. Interview with the author. September 27, 2011.

Sources

Brown, Joseph Andrew. *Bid Cost of Shuttle Facilities, Construction Bidding Cost of KSC's Space Shuttle Facilities*. Proceedings from the 23rd Annual American Association of Cost Engineers Meeting, Cincinnati, Ohio, July 15-18, 1979, 14. On file at Kennedy Space Center Archives.

Cape Canaveral Air Force Station Master Plan and Building Schedule. Department of the Air Force, Air Force Systems Command. Cape Canaveral, Florida, 1963.

Deming, Joan, and Patricia Slovinac. *NASA-Wide Survey and Evaluation of Historic Facilities in the Context of the U.S. Space Shuttle Program: Roll-Up Report*. Submitted to the National Aeronautics and Space Administration, Environmental Management Branch. Sarasota, Florida: Archaeological Consultants, Inc. February 2008, revised July 2008.

Kennedy Space Center. *Technical Facilities Resume: Hangar AF*. Facility No. 10-00-22-00 (John F. Kennedy Space Center, Florida, 1966), 43-44. On file at Kennedy Space Center Archives.

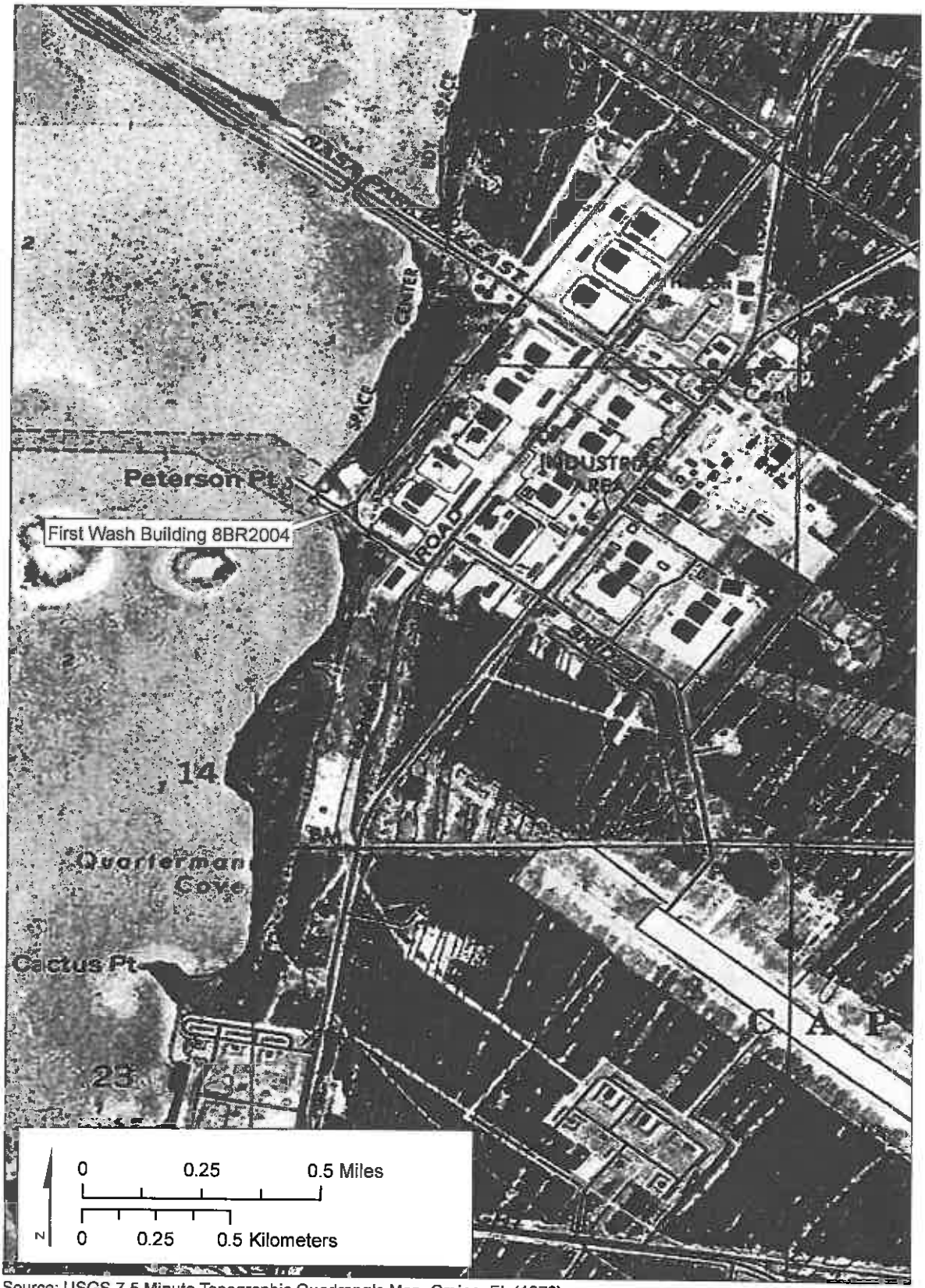
National Aeronautics and Space Administration (NASA)
NASA Facts: Solid Rocket Boosters. Kennedy Space Center, Florida. IS-2004-09-014-KSC, Revised 2006.

NASA Facts: Solid Rocket Boosters and Post-Launch Processing. Kennedy Space Center, Florida. FS-2004-07-012-KSC (Rev. 2006).

Sverdrup Corporation: Company History. http://www.fundinguniverse.com/company-histories/Sverdrup-Corporation-Company-History.html. Accessed November 17, 2011.

United Space Alliance
"Marine Operations, Revision J." (John F. Kennedy Space Center, n.d.), MO-1.

Historic Structure Form
Continuation Sheets



Source: USGS 7.5 Minute Topographic Quadrangle Map, Orsino, FL (1976)

Source: ESRI Resource Data, Imagery Layer

First Wash Building, Exterior