

Original
 Update



HISTORICAL STRUCTURE FORM

FLORIDA MASTER SITE FILE

Version 4.0 1/07

Site #8 BR01994
Field Date 3-8-2010
Form Date 4-11-2011
Recorder # _____

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

Site Name(s) (address if none) Thermal Protection System Facility (TPSF) Multiple Listing (DHR only) _____
Survey Project Name HAER Documentation:TPSF 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

Street Number R6-0794 Direction _____ Street Name VAB Area Street Type _____ Suffix Direction _____
Address: _____
Cross Streets (nearest / between) _____
USGS 7.5 Map Name ORSINO USGS Date 1976 Plat or Other Map _____
City / Town (within 3 miles) Titusville In City Limits? yes no unknown County Brevard
Township 22S Range 37E Section 07 ¼ section: NW SW SE NE Irregular-name: _____
Tax Parcel # N/A Landgrant _____
Subdivision Name _____ Block _____ Lot _____
UTM Coordinates: Zone 16 17 Easting 533715 Northing 3162079
Other Coordinates: X: _____ Y: _____ Coordinate System & Datum _____
Name of Public Tract (e.g., park) _____

HISTORY

Construction Year: 1988 approximately year listed or earlier year listed or later
Original Use Other From (year): _____ To (year): _____
Current Use Other From (year): _____ To (year): _____
Other Use _____ 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): Jacobs Engineering Group Builder (last name first): Holloway Construction
Ownership History (especially original owner, dates, profession, etc.) National Aeronautics and Space Administration

Is the Resource Affected by a Local Preservation Ordinance? yes no unknown Describe _____

DESCRIPTION

Style Industrial Vernacular Exterior Plan Irregular Number of Stories 1/2
Exterior Fabric(s) 1. Metal 2. _____ 3. _____
Roof Type(s) 1. Built-up 2. _____ 3. _____
Roof Material(s) 1. Built-up 2. _____ 3. _____
Roof secondary strucs. (dormers etc.) 1. _____ 2. _____
Windows (types, materials, etc.) not applicable
Distinguishing Architectural Features (exterior or interior ornaments) not applicable

Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) not applicable

DHR USE ONLY		OFFICIAL EVALUATION	DHR USE ONLY	
NR List Date		SHPO – Appears to meet criteria for NR listing: <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> insufficient info	Date _____	Init. _____
<input type="checkbox"/> Owner Objection		KEEPER – Determined eligible: <input type="checkbox"/> yes <input type="checkbox"/> no	Date _____	
		NR Criteria for Evaluation: <input type="checkbox"/> a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d (see <i>National Register Bulletin</i> 15, p. 2)		

DESCRIPTION (continued)

Chimney: No. _____ Chimney Material(s): 1. _____ 2. _____
 Structural System(s): 1. Skeleton-steel 2. Concrete block 3. _____
 Foundation Type(s): 1. Slab 2. _____
 Foundation Material(s): 1. Poured Concrete Footing 2. _____
 Main Entrance (stylistic details) double 1-light metal swing doors on south elevation

Porch Descriptions (types, locations, roof types, etc.) not applicable

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

Narrative Description of Resource see attached

Archaeological Remains _____ 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) see attached

OPINION OF RESOURCE SIGNIFICANCE

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) see attached

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 3. _____ 5. _____
 2. Transportation 4. _____ 6. _____

DOCUMENTATION

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

1) Document type All materials at one location Maintaining organization Archaeological Consultants Inc
 Document description _____ File or accession #'s P9026H
 2) Document type _____ Maintaining organization _____
 Document description _____ File or accession #'s _____

RECORDER INFORMATION

Recorder Name Slovinac, Trish Affiliation Archaeological Consultants Inc
 Recorder Contact Information 8110 Blaikie Court, St A, Sarasota, FL 34240/941-379-6206/ACIFloridaAcomcast.net
 (address / phone / fax / e-mail)

Required Attachments

① USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED

② LARGE SCALE STREET, PLAT OR PARCEL MAP (available from most property appraiser web sites)

③ 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.

CONTINUATION SHEET**Narrative Description**

The Thermal Protection System Facility (TPSF) is a one- and two-story building, with an approximate total area of 44,000 ft². It features exterior walls of corrugated metal and interiors finished with drywall. The building rests on a poured concrete slab foundation and is topped by a flat, built-up roof. The first floor contains the tile production areas. The tile machine shop fabricates billets of tile at varying densities, depending on their placement on the orbiter. There is also a room that contains five tile-cutting machines, both hand-operated and computer-operated. Another room, used for the application of the reaction-cured glass coatings, contains conventional spray equipment and drying areas. An additional area contains elevator kilns for firing the tiles, as well as heat cleaning spaces used also for gap fillers and insulation blankets. The second floor, constructed over the east half of the building, is used for the assembly of blankets and gap fillers. Here, a large open room contains sewing machines, hand-sewing stations, and testing areas where materials such as those used on strain isolator pads are tested for consistency. The facility also has its own materials storage area.

Explanation of Evaluation:

The TPSF is considered eligible for listing in the NRHP in the context of the U.S. Space Shuttle Program (1969-2010) under Criterion A in the area of Space Exploration. Because it has achieved significance within the past 50 years, Criteria Consideration G applies. It is significant as one of only two NASA-owned assets constructed exclusively to house the manufacture and repair of the Space Shuttle's thermal protection and thermal control systems, essential to the success of the Space Shuttle Program. The TPSF is in excellent condition and maintains its integrity of location, design, setting, materials, workmanship, feeling, and association.

In addition to its individual eligibility, the TPSF is considered a contributing resource in the Orbiter Processing Historic District (8BR1990).

CONTINUATION SHEET

Bibliographic References:

- Anonymous. "KSC Complex 39 Reshaped for Role in the Shuttle Era." *Marshall Star*, July 6, 1977: 2.
- Benson, Charles D. and William B. Flaherty. *Gateway to the Moon. Building the Kennedy Space Center Launch Complex*. Gainesville: University Press of Florida, 1978.
- Jenkins, Dennis R. *Space Shuttle, The History of the National Space Transportation System. The First 100 Missions*. Hong Kong: World Print Ltd., 2001.
- National Aeronautics and Space Administration. *America's Spaceport: John F. Kennedy Space Center*, n.d.a
- National Aeronautics and Space Administration. *Countdown! NASA Space Shuttles and Facilities*. IS-2005-06-017-KSC, n.d.b
- National Aeronautics and Space Administration. *Technical Facilities Catalog* [NHB 8800.5 (II)], March 1967.
- National Aeronautics and Space Administration. *Technical Facilities Catalog* [NHB 8800.5A (II)], October 1974.
- National Aeronautics and Space Administration. *Facts: John F. Kennedy Space Center*, 1994.
- National Aeronautics and Space Administration. *Basic Information Guide/KSC GP-14-2*, KSC Master Planning, October 2000.

Websites

- Facility Detail. Thermal Protection System Facility.
http://sgs.ksc.nasa.gov/sgs/apps/mis/fic/display.cfm?fac_id=225.
- "Orbiter Thermal Protection System." NASA Facts On Line, KSC Release No. 11-89, February 1989. <http://www-pao.ksc.nasa.gov/kscpao/nasafact/tps.htm>.

PHOTOGRAPHS



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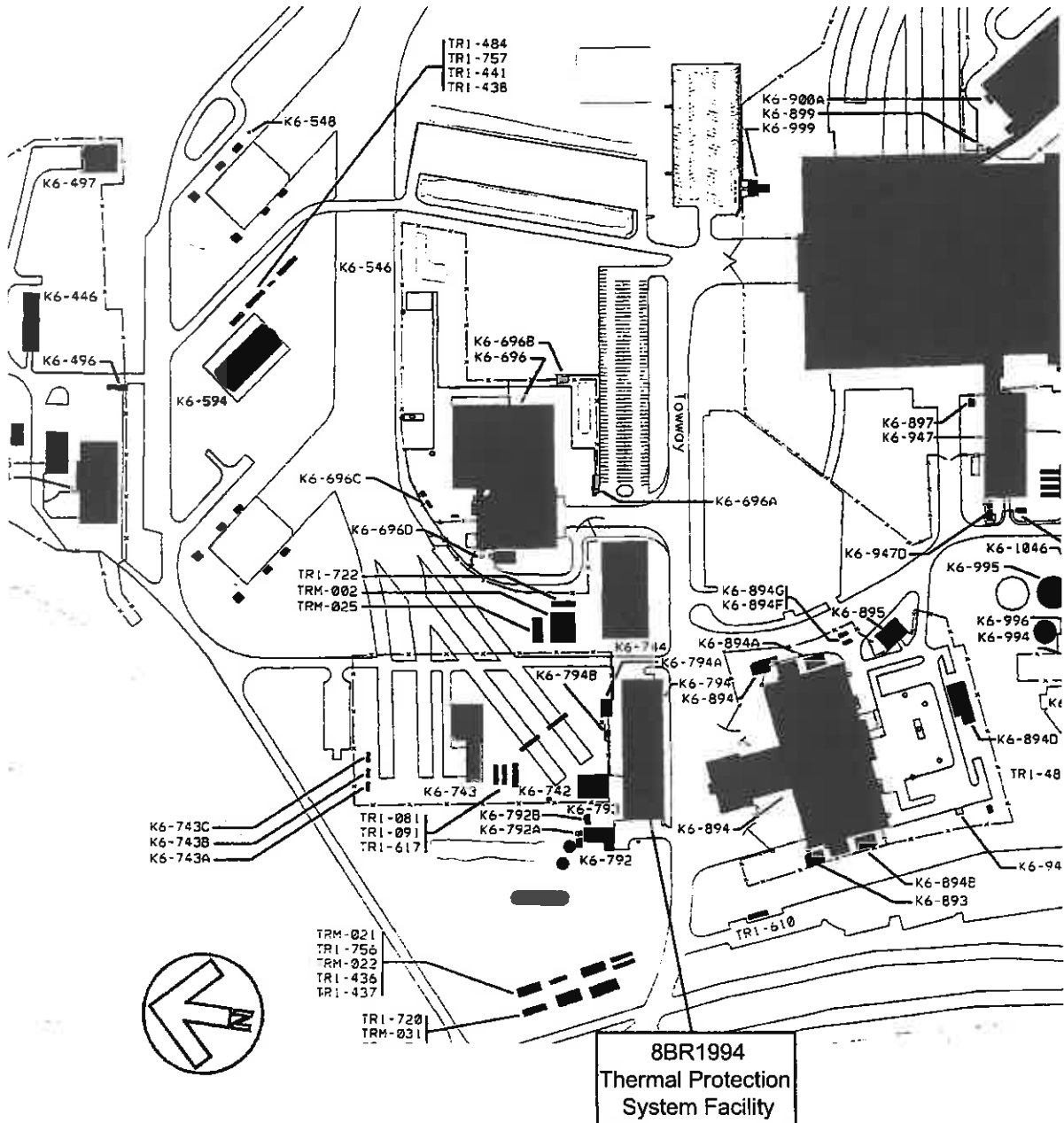


PHOTOGRAPHS



STREET OR PLAT MAP

Source: NASA John F. Kennedy Space Center,
Facility Utilization Chart,
July 1, 1995,
Chart F



USGS MAP

Township 22 South, Range 37 East, Section 7
Orsino, Fla. 1976

