

Original  
 Update



# HISTORICAL STRUCTURE FORM

## FLORIDA MASTER SITE FILE

Version 4.0 1/07

Reset Form

Site #8 **BR02002**  
Field Date 5-13-2013  
Form Date 7-30-2013  
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) High Pressure Gas 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 Bldg. 66251 Direction \_\_\_\_\_ Street Name Hangar Street Type \_\_\_\_\_ Unix Direction \_\_\_\_\_  
Address: \_\_\_\_\_ Road \_\_\_\_\_  
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 1/4 section:  NW  SW  SE  NE Irregular-name: \_\_\_\_\_  
Tax Parcel # N/A Landgrant \_\_\_\_\_  
Subdivision Name \_\_\_\_\_ Block \_\_\_\_\_ Lot \_\_\_\_\_  
UTM Coordinates: Zone  16  17 Easting 540396 Northing 3151093  
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 1963  approximately  year listed or earlier  year listed or later  
Original Use Other From (year): 1963 To (year): 1977  
Current Use Abandoned/Vacant From (year): 1977 To (year): 2012  
Other Use Apollo Program support; 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): Bail, Horton & Assoc Builder (last name first): unknown  
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. (domers etc.) 1. \_\_\_\_\_ 2. \_\_\_\_\_  
Windows (types, materials, etc.) N/A

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	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 <input checked="" type="checkbox"/> Clear Check Boxes	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)** 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. \_\_\_\_\_  
 Main Entrance (stylistic details) single-light metal door

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

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 concrete block building with a shed roof, cast-in-place concrete foundation, and a square floor plan. See continuation sheet.

Archaeological Remains Not Applicable  Check if Archaeological Form Completed

**RESEARCH METHODS (check all that apply)**

- |  |  |  |   |
|--|--|--|---|
| <input checked="" type="checkbox"/> FMSF record search (sites/surveys) | <input checked="" type="checkbox"/> library research | <input type="checkbox"/> building permits                    | <input type="checkbox"/> Sanborn maps                       |
| <input type="checkbox"/> FL State Archives/photo collection            | <input type="checkbox"/> city directory              | <input checked="" type="checkbox"/> occupant/owner interview | <input type="checkbox"/> plat maps                          |
| <input type="checkbox"/> property appraiser / tax records              | <input checked="" type="checkbox"/> newspaper files  | <input type="checkbox"/> neighbor interview                  | <input type="checkbox"/> Public Lands Survey (DEP)          |
| <input checked="" type="checkbox"/> cultural resource survey (CRAS)    | <input checked="" type="checkbox"/> historic photos  | <input checked="" type="checkbox"/> interior inspection      | <input checked="" type="checkbox"/> HABS/HAER record search |
| <input type="checkbox"/> other methods (describe) _____                |  |  |   |

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

**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 High Pressure Gas 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 3. Engineering 5. \_\_\_\_\_  
 2. Science 4. Transportation 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 <u>Photographs</u>	Maintaining organization <u>National Aeronautics and Space Administration</u>
Document description <u>HAER Photography and Narrative Context</u>	File or accession #'s <u>http://mediaarchive.ksc.nasa.gov/search</u>
2) Document type <u>Photographs</u>	Maintaining organization <u>National Park Service, Region One</u>
Document description <u>Hangar AF Complex</u>	File or accession #'s <u>HAER Nos. FL-8-11-S and FL-8-11-S-8</u>

**RECORDER INFORMATION**

Recorder Name David L. Price Affiliation New South Associates  
 Recorder Contact Information 118 S. 11th St. Nashville, TN 37206; dprice@newsouthassoc.com; 615-262-4326  
 (address / phone / fax / e-mail)

<b>Required Attachments</b>	<b>① USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED</b>
	<b>② LARGE SCALE STREET, PLAT OR PARCEL MAP</b> (available from most property appraiser web sites)
	<b>③ PHOTO OF MAIN FACADE, ARCHIVAL B&amp;W PRINT OR DIGITAL IMAGE FILE</b> 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.

## Historic Structure Form Continuation Sheets

### DESCRIPTION OF RESOURCE:

The High Pressure Gas Building (1963) is a one-story concrete block building with a shed roof, cast-in-place concrete foundation, and a square floor plan. The shed roof extends out to create an eave overhanging the west-facing façade and is flush with the other three exterior walls. There are four side-by-side gaseous nitrogen holding tanks on the east side of the building. These tanks date from the building's original construction for the Apollo Program and are no longer in use. The front (west) façade of the building was originally an open bay, hence its original nickname as the "lean-to" building, and it was enclosed with concrete block at an unknown date. A 1983 aerial photograph shows the building's west façade open, so it was not enclosed until after this date. The façade features a central roll-up door flanked by a single metal pedestrian entrance.

The interior of the High Pressure Gas Building consists of a single room that contains an Empire blast cabinet, a machine used to strip the metal surfaces of solid rocket booster (SRB) small parts. It has a polished concrete floor. The blast machine is vented to the exterior on the east and north sides of the building. There is a 1,000-pound overhead crane with hoist that runs from the front to the back of the building that was used to load parts into the blast cabinet. The room is illuminated by suspended fluorescent light fixtures.

### EXPLANATION OF EVALUATION:

Hangar AF and the High Pressure Gas Building were originally built in 1963 for NASA's Apollo program. According to technical reports, they were used for Saturn IB and Saturn V Staff Headquarters and Administrative Support Offices. The building was later adapted for the Space Shuttle Program (SSP) to house a blast machine. Each of the SRB segments contained a number of small but heavy aluminum parts that were individually removed for refurbishment at Hangar AF's Small Parts Processing Area and in the High Pressure Gas Building after each flight.

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 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 High Pressure Gas 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.

**Historic Structure Form  
Continuation Sheets**

**BIBLIOGRAPHIC REFERENCES:**

Photographs and Drawings

Bail, Horton & Associates. "Hangar 'AF'." Kennedy Space Center, Florida. Construction Drawings, 1962.

Kennedy Space Center.

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

Photograph negative number 108-KSC-81PC-459, 1981. On file at Kennedy Space Center Archives.

Photograph negative number 116-KSC-383C-1256, 1983. 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

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).

**Historic Structure Form  
Continuation Sheets**

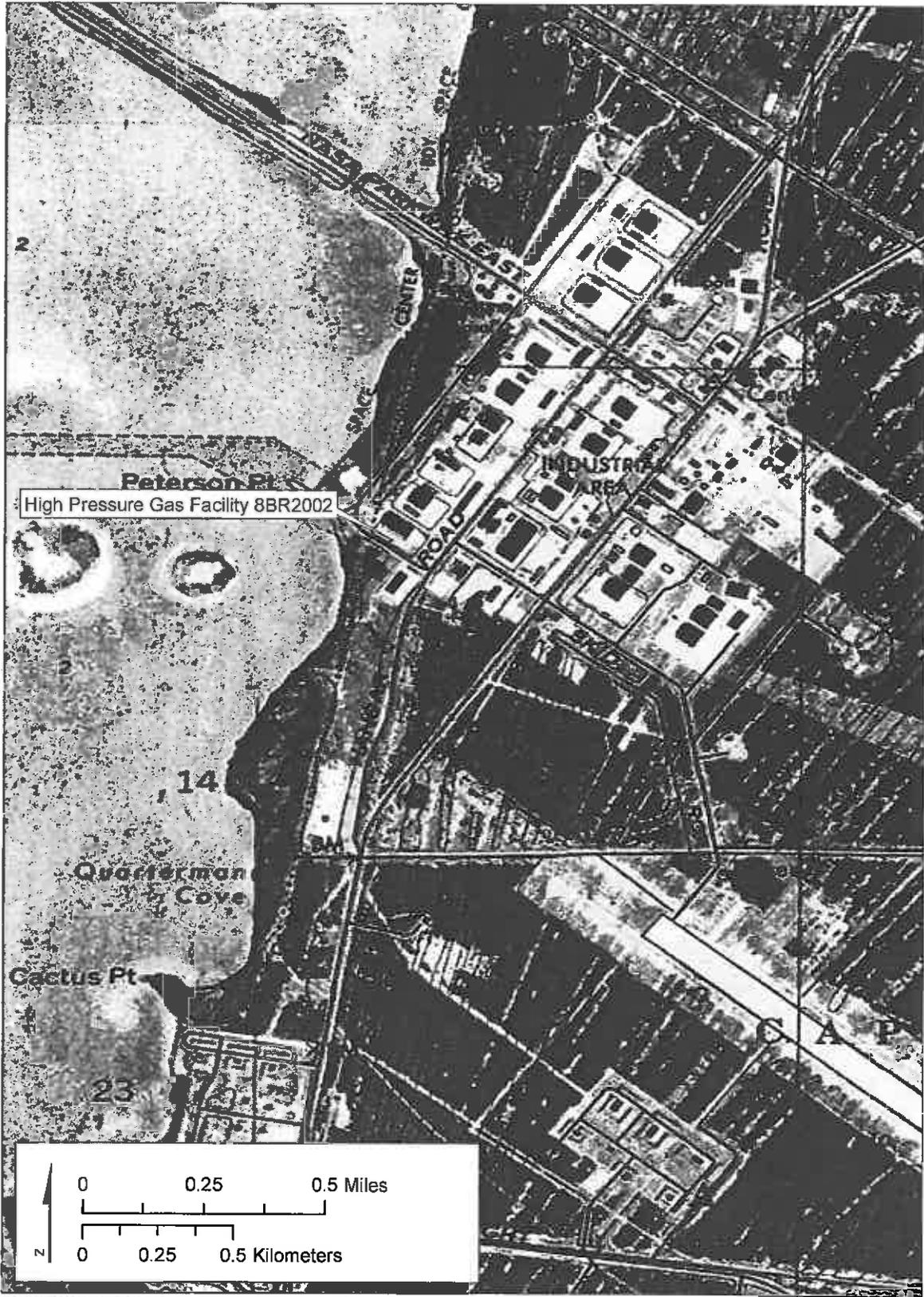
United Space Alliance

“Marine Operations, Revision J.” (John F. Kennedy Space Center, n.d.), MO-1.

“Structures Assembly Buildup Operations, Revision J” (John F. Kennedy Space Center, n.d.).

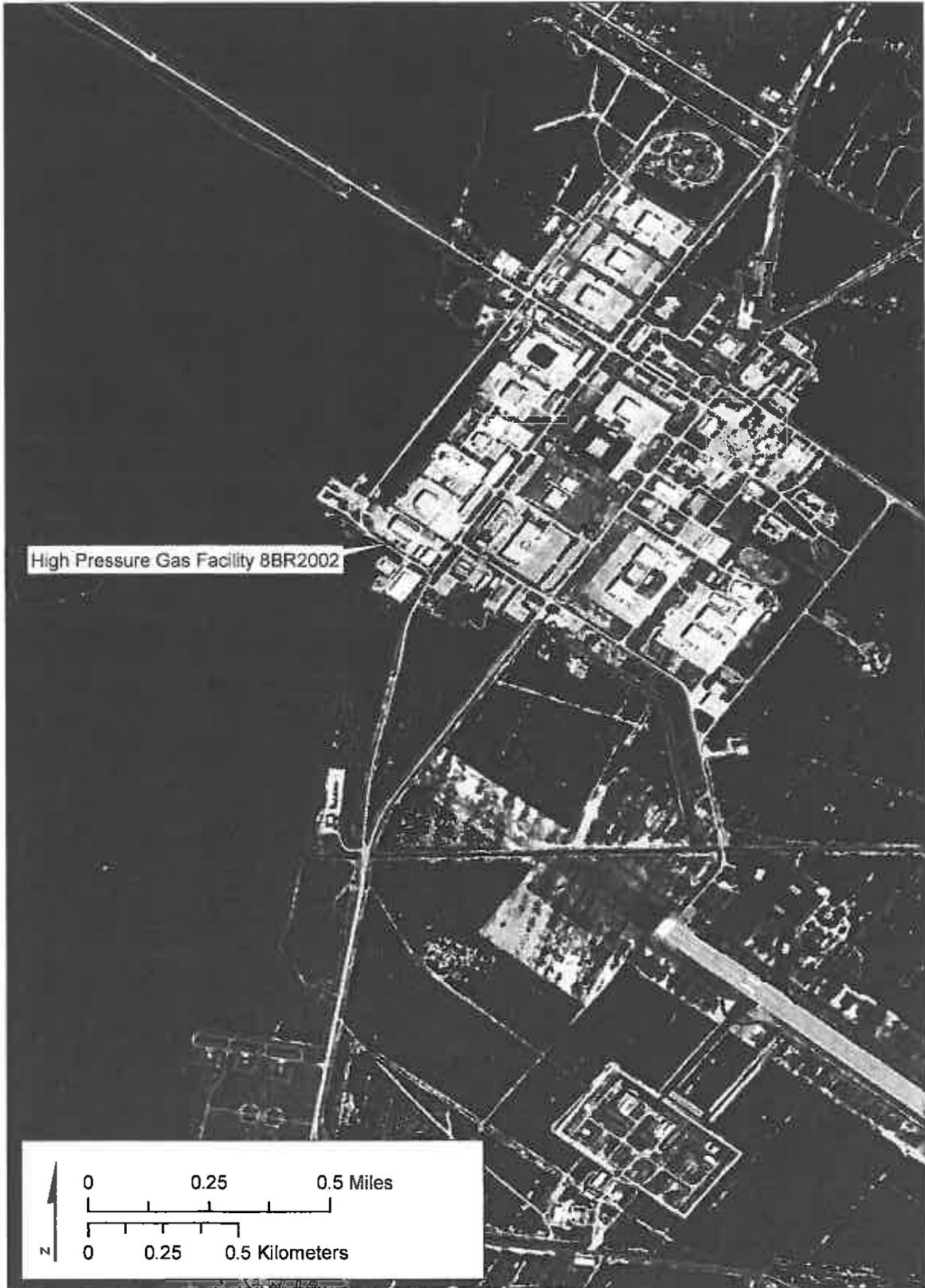
McQuade, Thomas J., Donna A. McQuade, and George Bail. “George H. Bail AIA” (Fort Myers, FL: American Institute of Architects FLASW and The Southwest Florida Museum of History, 2011), 1. <http://mcmo-swfl.com/bio/Bail-%20George%20H%20-%20Narrative.pdf>. Accessed November 17, 2011.

Historic Structure Form  
Continuation Sheets



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

**Historic Structure Form  
Continuation Sheets**



Source: ESRI Resource Data, Imagery Layer

**Historic Structure Form  
Continuation Sheets**



**High Pressure Gas Building, Exterior**