July 11, 2012

Leslie A. Main,
NASA Glenn Research Center, Facilities Division
21000 Brookpark Road (Mail Stop 21-3)
Brook Park, Ohio 44135

Dear Mr. Main:

Re: Ohio Historic Preservation Office Signing of Plum Brook Station Programmatic Agreement

This is in response to your submission of *Programmatic Agreement between the National Aeronautics and Space Administration and the Ohio State Historic Preservation Office regarding Facilities, Infrastructure, and Sites at the National Aeronautics and Space Administration's Plum Brook Station, Erie County, Ohio* which was signed by Ramon Lugo, Director, National Aeronautics and Space Administration, Glenn Research Center on June 26, 2012. This office has reviewed the programmatic agreement and found it acceptable. Mark J. Epstein, Resource Protection and Review Department Head, signed the document on behalf of the Ohio Historic Preservation Office on July 11, 2012. The original executed document is enclosed with this letter. Pursuant to 36 CFR Section 800.6(b)(1)(iv), you should provide a copy of the executed Programmatic Agreement to the Advisory Council on Historic Preservation before distributing it.

If you have any questions concerning this review, please feel free to contact me at (614) 298-2049 or jrandall@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Joan Randall
Project Reviews Manager

ID#: 2012-ERI-19497
Ser. #: 1044962

Enclosure

OHIO HISTORICAL SOCIETY
Ohio Historic Preservation Office
1982 Velma Avenue, Columbus, Ohio 43211-2497 ph: 614.298.2000 fx: 614.298.2037
www.ohiohistory.org

PROGRAMMATIC AGREEMENT

BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AND THE

OHIO STATE HISTORIC PRESERVATION OFFICE

REGARDING FACILITIES, INFRASTRUCTURE, AND SITES AT THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION'S PLUM BROOK STATION, ERIE COUNTY, OHIO

WHEREAS, the National Aeronautics and Space Administration (NASA) manages and operates the Plum Brook Station (PBS), located in Erie County, Ohio; and

WHEREAS, NASA's Glenn Research Center (GRC) in Cleveland, Ohio, administers and manages PBS for NASA; and

WHEREAS, NASA has determined that the operation, management, and administration of NASA at PBS entails undertakings that may affect properties included in, or eligible for, inclusion in the National Register of Historic Places (NRHP), including the Space Power Facility (SPF), the Space Propulsion Research Facility (SPRF), and their associated structures, and has consulted with the Advisory Council on Historic Preservation (ACHP) and the Ohio Historic Preservation Office (OHPO) to develop this programmatic agreement (Agreement) pursuant to Section 800.14(b)(1) of the regulations (36 Code of Federal Regulations (CFR) Part 800) implementing Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470f) and Section 110 (f) of the same act (16 U.S.C. 470h-2)(f)); and

WHEREAS, NASA elects to fulfill its obligations under Section 106 of the NHPA through execution and implementation of this Agreement, as provided for in 36 CFR Part 800.14(b); and

WHEREAS, the purpose of this Agreement is to ensure that the historic, engineering, and architectural significance of the historic properties under the jurisdiction of NASA at PBS are recognized and considered in the course of ongoing NASA programs; and

WHEREAS, the primary objective of this Agreement is to establish a process for compliance with Section 106 of the NHPA, ensuring that reuse, modification, replacement, and removal of facilities are considered by NASA in meeting the procedures contained in this Agreement; and

WHEREAS, NASA has defined the area of potential effects (APE) as all of PBS; and

WHEREAS, this Agreement applies to the SPRF (Building 3211), a National Historic Landmark (NHL) in 1985, only in ways that do not override the existing agreement among NASA, the National Conference of State Historic Preservation Officers, and the ACHP, dated October 1989; an agreement that prescribes the process by which NASA's designated NHL (~~Appendix A~~ Attachment A) may be modified to meet the requirements of ongoing NASA programs; and

MJE 7.11.12

WHEREAS, NASA recognizes that the SPRF's original designation included only Building 3211, but that other structures in the near vicinity of Building 3211, including the Control Building 5411, contribute to the significance of the NHL and that a view corridor between Buildings 3211 and 5411 contributes to the significance of the NHL; and

WHEREAS, NASA and the OHPO have agreed that the SPF is individually eligible for listing in the NRHP. The SPF is comprised of Building 1411, the test building; Building 1431, the water treatment building; Building 1432, the liquid nitrogen service building; Building 1433, the bottle storage building; Building 1441, the office building; Building 1452, the water tower; Building 1453, the cooling tower; Building 1454, the liquid nitrogen tank; Building 1461, Substation (Sub H); and Building 8336, the SPF sewage treatment plant; and

WHEREAS, NASA recognizes that PBS, which originated as the Plum Brook Ordnance Works, served as a locus of Cold War era research and testing facilities that were essential to the success of the U.S. space program through groundbreaking nuclear and space simulation experimentation during the period 1955 to 1973. NASA also recognizes that there were 16 major facilities at PBS for that period (A-Site, B-1, SPRF [i.e., B-2], B-3, C-Site, D-Site, the Engineering Building, E-Site, F-Site, H-Control, HTF, I-Site, J-Site, K-Site, the Nuclear Research Reactor Site, and SPF) and that early demolition and alteration have reduced the number of extant facilities that can convey significance to eight (D-Site, the Engineering Building, H-Control, HTF, J-Site, K-Site, SPF, and SPRF); and

WHEREAS, in recognition of the importance and history of these sites based on available information, NASA recognizes the significance of the eight extant sites and finds that they are eligible for inclusion in the NRHP in that, were it not for early demolition and alteration, PBS would be eligible for listing in the NRHP as a historic district; and

WHEREAS, NASA finds that alternate uses for the eight extant sites are not feasible and practical (see Attachment B); and

WHEREAS, NASA finds that the demolition of certain buildings is necessary for health, safety, economic, and development potential reasons (see attachment C for list of buildings and likely schedule of demolition); and

WHEREAS, NASA proposes to provide certain documentation as determined through further consultation set forth in the stipulations to this Agreement for the resolution of the adverse effects for the demolitions shown in attachment C; and

WHEREAS, when an additional existing facility, structure, district, or archaeological site is listed or determined eligible for listing in the NRHP, this Agreement will be applicable and the review process established herein will be implemented; and

WHEREAS, NASA recognizes the role that the NHPA affords Indian Tribes and Tribal Historic Preservation Officers, and NASA GRC will consult with them in accordance with 36 CFR Part 800 on undertakings that involve ground-disturbing activities and undertakings which the Indian Tribes have indicated are of interest to them; and

WHEREAS, NASA has invited the Firelands Historical Society Museum (www.firelandsmuseum.org), Milan Historical Museum (www.milanhistory.org), the Erie County Historic Society, and the Sandusky Library (www.sandusky.lib.oh.us), and all have agreed to participate in the consultation; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), NASA has notified the ACHP of its adverse effect determination and provided the specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii), and

NOW, THEREFORE, NASA and the OHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

NASA shall ensure that the following measures are carried out:

I. CONSULTATION

A. NASA will consult with the OHPO on any undertaking that is likely to affect the exterior of buildings or any new construction in the area marked on ~~Appendix A,~~ Attachment D bounding the SPRF. MJE 7.11.12

B. NASA will consult with the OHPO on any proposed construction or erection of structures (unless temporary, i.e., less than 1 year) within the historic SPRF boundary including the view corridor between SPRF and the B Control and Data Building, Building 5411. The OHPO will provide a response to NASA within 30 days of submission. (Attachment D) MJE 7.11.12

C. NASA will consult with the OHPO on any undertaking that is likely to affect the character defining features of the SPF, to include exterior alterations, building additions, or changes to the simulation chamber. Maintenance, operations, hardware upgrades, and improvements to maintain functionality of the SPF (other than structural) do not require consultation under this agreement.

D. NASA will continue to consult with the OHPO on new construction in the vicinity of the SPRF or SPF.

E. NASA will continue to consult, as appropriate, in accordance with the Programmatic Agreement among NASA, the National Conference of State Historic Preservation Officers, and the ACHP for National Historic Landmarks, signed in 1989, and any subsequent amendments.

F. NASA will no longer consult on undertakings that include the alteration or demolition of any remaining structures on PBS other than described in Stipulations 1.A through E.

G. NASA will consult in accordance with Stipulation III on all ground disturbing activities.

H. NASA will continue to consult with the OHPO and consulting parties on new construction projects that require an environmental impact statement in accordance with the National Environmental Policy Act of 1969, as amended. (Pub. L. 91-190, 42 U.S.C. 4321-4347).

II. RECORDATION

A. Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Recordation: NASA will compile a collection of all HABS/HAER and other substantial documentation previously completed for facilities at PBS and make it available on its Web site in accordance with NASA policies. Also, limited copies of the HABS/HAER documents will be available by contacting the GRC Historic Preservation Officer, Leslie A. Main, at (216) 433-6345 or Leslie.A.Main@nasa.gov.

B. Narrative: NASA will locate and identify existing documents, photographs, and films regarding the development of the hydrogen test site facilities at "Hydrogen Test Sites at PBS" and develop a narrative history within 2 years of executing this agreement and make it available on the above public Web site. The narrative will describe the test facilities, the research conducted there, and contextual information. NASA will afford the OHPO 30 days to review and approve the scope of the history documentation and also the resulting draft history.

C. Web site: NASA will develop a Web site for the facility highlighting its history, tests, and physical aspects. The site will incorporate historical images, short video clips, narrative histories, timelines, and other information.

D. Photographic Documentation: NASA will photographically document the interiors and exteriors of the extant facilities within 1 year of executing this agreement and make it available on the above public Web site.

III. ARCHAEOLOGY

A. In the event NASA plans ground disturbance as part of rehabilitation, new construction, site improvement, or other projects in an area with a previously identified archaeological property, and if the resource is eligible for or listed in the NRHP, NASA shall consult with the OHPO on ways to avoid, minimize, or mitigate potential effects to the identified property. NASA will also consult with the OHPO if a determination of eligibility has not been finalized. All work in areas previously surveyed and where no resources are identified, may proceed without further consultation with the OHPO.

B. For land disturbing activities planned in areas where no previous survey has occurred, NASA shall consult with the OHPO and determine whether further archaeological survey is warranted. If after consultation with the OHPO, NASA determines that further efforts are needed to identify archaeological sites in areas of planned land disturbance, NASA shall ensure that a Phase I or Phase II investigation is carried out in accordance with the OHPO standards or in accordance with guidance from the OHPO. A Phase II shall be sufficient to identify any potentially eligible sites present within the APE and determine conclusively their eligibility for listing in the NRHP.

C. If NASA determines that it is not feasible to preserve or avoid a NRHP eligible or listed archaeological property, NASA shall consult with the OHPO to develop a data recovery plan. The data recovery plan shall be consistent with the Secretary of the Interior's *Standards and Guidelines for Archaeological Documentation* (48 FR 44734-37, September 29, 1983) and the OHPO's archaeological guidelines (1994), and shall take into account the ACHP's publications, *Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites* (1999; rev. 2003) or subsequent revisions or replacements to these documents and *Section 106 Archaeology Guidance* (June 2007).

D. NASA shall submit the data recovery plan to the OHPO and the other consulting parties including Indian tribes, as appropriate, for review and comment. The OHPO agrees to provide comments with 30 days of confirmed receipt of the plan. NASA shall take any comments received into account and implement the data recovery plan.

E. If the OHPO or other consulting party objects to the proposed data recovery plan or its manner of implementation, NASA shall request the comments of the ACHP in accordance with 36 CFR Part 800.6(b)(1)(v).

IV POST-REVIEW DISCOVERIES AND UNANTICIPATED EFFECTS

The NASA shall ensure that all construction contractors involved in ground-disturbing activities are aware of the provisions in Stipulation IV A to E.

A. If previously unidentified historic properties are discovered or unanticipated effects encountered during construction, the construction contractor shall immediately halt all activity within a 100-foot radius of the discovery, notify NASA of the discovery or unanticipated effects, and implement interim measures to protect the discovery from looting and vandalism.

B. Immediately upon receipt of the notification, NASA shall

1. Inspect the construction site to determine the extent of the discovery and ensure construction activities have halted;

2. Implement additional measures, as appropriate, to protect the discovery from looting and vandalism;

3. Have a professional archeologist inspect the construction site to determine the extent of the discovery and provide recommendations regarding its NRHP eligibility and treatment; and

4. Notify the OHPO and other consultation parties, as appropriate, of the discovery describing the measures that have been implemented.

C. Within 48 hours of receipt of the notification described in Stipulation IV.B.4, NASA shall provide the OHPO and other consulting parties, as appropriate, with its assessment of the NRHP eligibility of the discovery and the measures it proposes to take to resolve adverse effects. In making its official evaluation, NASA, in consultation with the OHPO, may assume the discovery to be NRHP eligible for the purposes of Section 106 pursuant to 36 CFR 800.13(c). The OHPO and other consulting parties, as appropriate, shall respond within 48 hours of receipt.

D. NASA shall take into account the OHPO and consulting party recommendations on eligibility and treatment of the discovery and shall provide the OHPO and other consulting parties, as appropriate, with a report on these actions when they have been implemented.

E. Construction activities may resume in the area of discovery when NASA has determined that implementation of the actions undertaken to address the discovery pursuant to stipulation IV are complete.

V. DURATION

A. This Agreement shall remain in full force and effect for 5 years after the date of the last signatory's signature, after which the Agreement will automatically renew for a period of 5 years unless a signatory to this Agreement objects in writing to its renewal 60-calendar days prior to the date this Agreement would otherwise expire. If an objection is received, NASA will consult with the signatories to determine whether the Agreement needs to be extended, amended, or terminated and take such actions, as appropriate.

B. If, at the end of the 10-year period, the signatories agree to consult on an extension of this Agreement, the signatories will execute a written modification extending the Agreement for an agreed upon period from the date the original Agreement would have expired, absent the extension.

VI. EMERGENCY ACTIONS

A. Emergency actions are those actions deemed necessary by NASA as an immediate and direct response to an emergency situation, which is a disaster or emergency declared by the President or the Governor of Ohio, or other immediate threats to life or property. Emergency actions under this Agreement are only those implemented within 30-calendar days from the initiation of the emergency situation.

B. NASA shall notify the OHPO and other consulting parties, as appropriate, prior to undertaking the action, when feasible. As part of the notification, NASA shall provide a plan to address the emergency. The plan shall include the basis for the proposed action and photographs of the current building, facility, or area under consideration. The OHPO shall have 7-calendar days to review and comment on the plan to address the emergency. If the OHPO or other consulting parties fail to provide comments within the 7-calendar day review period, NASA may assume that the nonresponding party has no comments. NASA shall take all comments received into consideration when preparing the final plan and then implement the plan.

C. If NASA is unable to consult with the OHPO prior to carrying out emergency actions, NASA shall notify the OHPO and other parties, as appropriate, within 5-calendar days after the initiation of the emergency action. This notification shall include a description of the emergency action taken, the effects of the action(s) to historic properties, and where appropriate, any further proposed measures to avoid, minimize, or mitigate potential adverse effects to buildings and structures, and archaeological sites listed or considered eligible for listing in the NRHP.

VII. HUMAN REMAINS

The NASA shall make all reasonable efforts to avoid disturbing gravesites, including those

containing Native American human remains and associated funerary artifacts. NASA shall treat all human remains in a manner consistent with the ACHP "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (February 23, 2007; http://www.achp.gov/docs/hrpolicy0207.pdf) or ACHP policy in effect at the time remains and funerary artifacts are handled. If the remains are determined to be of Native American origin, NASA shall comply with the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. Sec 3001 et seq.).

Should human remains be discovered during construction, work in that area of the project will cease immediately. Such person or persons encountering the human remains will refrain from further disturbing or removing the human remains and any associated artifacts and will protect the exposed portions of the human remains from inclement weather and vandalism. The individual will immediately notify the Ohio Department of Natural Resources (ODNR). The ODNR will immediately notify the County Sheriff, the County Coroner, the OHPO, and Indian Tribes, if any, that have requested notification in this event. If the remains are not subject to a criminal investigation by local, state, or federal authorities, the ACHP's Policy Statement on Treatment of Human Remains (2007) will be used as guidance. Notwithstanding such guidance, all applicable state and federal laws, and regulations governing the discovery and disposition of human remains, will be followed. Construction activities may then continue only with the written approval of the OHPO.

VIII. MONITORING AND REPORTING

Each year following the execution of this Agreement, until it expires or is terminated, NASA shall provide all parties to this Agreement a summary report detailing work carried out pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in NASA's efforts to carry out the terms of this Agreement.

IX. DISPUTE RESOLUTION

Should any signatory to this Agreement object at any time to any actions proposed, or the manner in which the terms of this Agreement are implemented, NASA shall consult with such party to resolve the objection. If NASA determines that such objection cannot be resolved, NASA will:

A. Forward all documentation relevant to the dispute, including the NASA's proposed resolution, to the ACHP. The ACHP shall provide NASA with its advice on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, NASA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. NASA will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the 30-day time period, NASA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, NASA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the Agreement, and provide them and the ACHP with a copy of such written response.

C. The NASA's responsibility to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged.

X. AMENDMENTS

This Agreement may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

XI. TERMINATION

If a signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation X, above. If within 30 days, or another time period agreed to by all signatories, an amendment cannot be reached, any signatory may terminate the Agreement upon written notification to the other signatories.

Once the Agreement is terminated, and prior to work continuing on the undertaking, NASA must either (a) execute an Agreement pursuant to 36 CFR § 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. NASA shall notify the OHPO as to the course of action it will pursue.

XII. ANTI-DEFICIENCY ACT

The NASA's future efforts to execute requirements arising from the stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act. If compliance with the Anti-Deficiency Act alters or impairs NASA's ability to implement the stipulations of this Agreement, NASA shall consult in accordance with the amendment and termination procedures found at Stipulations XV of this Agreement. No provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, Title 31 U.S.C. Part 1341.

Execution of this Agreement, and implementation of its terms, evidence that NASA has afforded the ACHP a reasonable opportunity to comment on NASA's management of the facility, and that NASA has taken into account the effects of its ongoing management on historic properties and fully satisfies its Section 106 responsibilities for all individual undertakings subject to review under this Agreement.

SIGNATORIES:

National Aeronautics and Space Administration,
Glenn Research Center

_____ Date 6/26/12

Ramon Lugo
Director

Ohio Historic Preservation Office

_____ Date 7.11.12

Mark J. Epstein
Resource Protection and Review Department Head

Attachment A

Programmatic Agreement among the National Aeronautics and Space Administration, the National Conference of the State Historic Preservation Officers, and the Advisory Council on Historic Preservation

PROGRAMMATIC AGREEMENT
AMONG THE
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,
THE NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION

WHEREAS, the National Aeronautics and Space Administration (NASA) undertakes research, development, space mission operations, and management use of its facilities which have been designated as National Historic Landmarks (Landmarks) (Attachment 1); and

WHEREAS, such facilities require frequent modification over the life of agency missions to adapt them to meet the requirements of ongoing NASA programs; and

WHEREAS, NASA has determined that such modifications may have an effect on those Landmarks, and has consulted with the National Conference of State Historic Preservation Officers (NCSHPO) and the Advisory Council on Historic Preservation (Council) pursuant to the regulations (36 CFR Part 800) implementing Sections 106 and 110(f) of the National Historic Preservation Act, as amended (16 U.S.C. 470f and 470h-2(f)); and

WHEREAS, the Department of the Interior, National Park Service (NPS) was invited and participated in the consultation;

NOW, THEREFORE, NASA, the NCSHPO, and the Council agree that the programs shall be implemented in accordance with the following stipulations in order to take into account the effect of the programs and specific undertakings on the Landmarks.

Stipulations

NASA will ensure that the following measures are carried out.

I. Categories of Activities

A. When the proposed undertaking involves any of the following activities, NASA shall consult with the appropriate SHPO and, as necessary, the Council in accordance with Stip. II:

1. Demolition, dismantling, or relocation of original engineering structures, or of buildings housing facilities;
2. Removal or excessing of significant elements of the Landmarks specifically named on the National Register nomination forms;
3. New construction not compatible with major portions of the original structure or which alter the characteristics of the

facility which were specified as the reason for its Landmark designation; or

4. Changes in function, purpose, or use of a facility.

B. When the proposed undertaking is limited to the following activities that will not alter the characteristics of the facility which were specified as the reason for its landmark designation, NASA shall develop and implement mitigation measures in accordance with Stipulation III:

1. Replacement of historic hardware or components;
2. Modification of the original structure or equipment used in engineering structures, or buildings housing facilities; or
3. New construction compatible with existing structure, purpose, and operation of the facility.

NASA shall include a description of such activities and mitigation measures in the annual summary of its activities prepared pursuant to Stipulation IV.A.

C. When the proposed undertaking involves none of the activities specified above, NASA may proceed without consultation or the implementation of mitigation measures.

II. Consultation Process

A. Consultation required under Stip. I.A. shall be conducted as follows:

1. NASA shall provide the following documentation to the SHPO for review:
a. a description of the undertaking, with photos, maps, and drawings;
b. a description of the affected Landmark;
c. a description of the effects of the undertaking on the affected Landmark;
d. a description of alternatives to the proposed action, which were considered if any, and reasons not chosen;
e. a description of any mitigation measures proposed;
f. a description of NASA's effort, if appropriate, to obtain and consider views of affected interested persons on the proposed undertaking, including a copy of any comments received; and
g. the planning and approval schedule for the proposed undertaking.

Whenever feasible, NASA shall give the SHPO advance notice that such documentation is under preparation, and advise the SHPO of a date certain that it intends to submit the documentation to the SHPO.

2. The SHPO shall respond to a written request for consultation (accompanied by the documentation specified in Stip. II.A.1) within 20 working days, and agree, conditionally agree, or disagree with NASA's proposal.

3. If NASA does not accept the SHPO's conditions, or if NASA and the SHPO disagree, NASA shall notify the Council and forward copies of the documentation specified in Stip.II.A.1, above, along with other information relevant to the dispute.

4. Within 20 working days, the Council shall either: (1) attempt to resolve the dispute; (2) provide NASA with recommendations to be taken into account in implementing the activity; or (3) decide to comment, and comment within 45 working days of that decision. At NASA's request, the time periods in Stips. II.A.2. and II.A.4. will run concurrently. In exceptional circumstances NASA may request accelerated consideration under Stip. II.A.4. and the Council will make a good faith effort to accommodate such requests. The Council may consult with the National Park Service of the Department of the Interior during its review period.

B. The Council and the NCSHPO recognize that operational emergency situations may arise where NASA must take immediate action without prior consultation with the appropriate SHPO or the Council. In such situations, NASA shall notify the Council and the SHPO of such actions as soon as practicable.

III. Mitigation

Mitigation measures shall be carried out prior to undertaking actions specified in Stips. I.A. and I.B.

A. Recordation

1. Recordation shall be done in accordance with the Secretary of the Interior's "Standards for Architectural and engineering Documentation" (Standards) (Federal Register, 48 FR 190, pp. 44730-44734, September 29, 1983).

2. Because original "as-built" drawings and other records are on file at the installations containing Landmark facilities, documentation will normally include the following: (1) reproduction of existing "as-built" drawings and site plans modified on standard size (19 x 24 or 24 x 36) mylar; and (2) provision of black and white archival quality photos with large format negatives of exterior and interior views, as appropriate, as well as special technological features or engineering details.

3. Original copies of all documentation shall be provided to the Secretary of the Interior in accordance with the Standards for incorporation into the National Architectural and Engineering Records in the Library of Congress as provided in Section 101 of the National Historic Preservation Act and implementing procedures. Copies of the documentation shall also be provided to the appropriate SHPO.

B. Salvage

NASA will apply its agreement with the Smithsonian Institution (NASA Management Instruction 4310.4) to determine appropriate retention and curation activities with respect to significant artifacts.

IV. Continuing Coordination

A. On or about December 1, 1990, and annually thereafter, NASA will provide a summary of its activities under this Agreement to the Council and to the NCSHPO.

B. In consultation with the appropriate SHPO, the Council may review and comment upon individual undertakings when it determines that historic preservation issues warrant such action.

C. NASA will provide appropriate public information about activities under Stip.I.A. to interested parties upon request.

D. Any party to this Agreement may terminate it by providing 60 days notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

Execution of this Programmatic Agreement and carrying out its terms evidences that NASA has afforded the Council and the NCSHPO a reasonable opportunity to comment on its programs affecting Landmarks under Sections 106 and 110(f) of the National Historic Preservation Act, and that NASA has taken into account the effects of its programs on these Landmarks.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

By: _____ 9/20/89
Associate Administrator for Management — Date

NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS

By: _____ 10/6/89
President — Date

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ September 18, 1989
Chairman — Date

ATTACHMENT 1

NASA's NATIONAL HISTORIC LANDMARKS

(as of 2/24/89)

1. Variable Density Tunnel (Langley Research Center, Hampton, VA)
2. Full Scale Tunnel (Langley Research Center, Hampton, VA)
3. Eight-Foot High Speed Tunnel (Langley Research Center, Hampton, VA)
4. Unitary Plan Wind Tunnel (Ames Research Center, Moffett Field, CA)
5. Rocket Engine Test Facility (Lewis Research Center, Cleveland, OH)
6. Zero-Gravity Research Facility (Lewis Research Center, Cleveland, OH)
7. Spacecraft Propulsion Research Facility (Lewis Plum Brook Operations Facility)
8. Redstone Test Stand (George C. Marshall Space Flight Center, AL)
9. Propulsion and Structural Test Facility (George C. Marshall Space Flight Center, AL)
10. Rocket Propulsion Test Complex (Stennis Space Center, MS)
11. Saturn V Dynamic Test Stand (George C. Marshall Space Flight Center, AL)
12. Lunar Landing Research Facility (Langley Research Center, Hampton, VA)
13. Rendezvous Docking Simulator (Langley Research Center, Hapmton, VA)
14. Neutral Bouyancy Space Simulator (George C. Marshall Space Flight Center, AL)
15. Space Environment Simulation Laboratory (Lyndon B. Johnson Space Center, Houston, TX)
16. Spacecraft Magnetic Test Facility (Goddard Space Flight Center, Greenbelt, MD)
17. Twenty-Five-Foot Space Simulator (Jet Propulsion Laboratory, Pasadena, CA)
18. Pioneer Deep Space Station (Goldstone Deep Communications Complex, CA)
19. Space Flight Operations Facility (Jet Propulsion Laboratory, Pasadena, CA)
20. Apollo Mission Control Center (Lyndon B. Johnson Space Center, Houston, TX)

Attachment B

Former Hydrogen Rocket Fuel Research Sites Oriented to H Control Building at Plum Brook Station

Attachment B

Former Hydrogen Rocket Fuel Research Sites Oriented to H Control Building at Plum Brook Station

A Site – Rocket Pump Research

Building 2111 A Site Test Building

Building 2121 A Site Shop Building

Building 2131 A Site Boiler House

C Site - Rocket Turbopump and Pump Research

Building 2211 Test Building

Building 2221 Shop Building

Building 2231 Boiler House

Building 2251 Air Heater

D Site - Rocket Turbine and Controls Research

Building 2311 Test Building

Building 2321 Shop Building

Building 2331 Boiler House

E Site – Dynamics Research

Building 2411 Test Building

Building 2421 Shop Building

Building 2431 Boiler House

F Site – Hydraulics Research

Building 2511 Test Building

Building 2531 Boiler House

I Site – Fluorine Pump Research

Building 2611 Test Building

Building 2621 Shop Building

Building 2631 Boiler and Safety Wash Building

J Site – Rocket Systems Research

Building 2713 J5 Test Building

Building 2714 J5 Control Building

Building 2721 Shop Building

Building 2732 Boiler House

K Site – Cryogenic Propellant Research

Building 2811 Test Building

Building 2812 Control Building

Building 2831 Boiler House

Attachment C

Demolition Schedule for Abandoned or Underutilized Facilities at

Plum Brook Station

FY11-FY16 Plum Brook Demolition Project List

FY of Imp.	Project ID #	Project Description	Budget ($K)	Notes:
11		Design and Remediation for Demo' of K-Site Buildings 2812, 2813, and 2831.	750	$600k of future funding need to complete.
11		Design for Demolition of SPF Sewage Treatment Plant, Building No. 8336, Plum Brook Station	300	$1,200 needed to complete.
11		Design for Demolition of Buildings 5412, 8134 and 8931, Plum Brook Station	500	$700k needed to complete.
11		Demolish Railroad Tracks, PBS, Phase 1 of 2	500	Completing in FY11
11		Demo' Railroad Tracks Phase II, Plum Brook Station	500	Completing in FY11
11		Demo' PB Reactor Buildings 1111, 1112 and 1134.	3,110	FY11 Funding
		FY11 Total	**5,660**	

		FY12 Program Projects		
12	2011-011	Deconstruct J-Site Facilities, Plum Brook Station (2713, 2714, 2721,2732 and 1921)	500	Deferred from FY11
12	2011-009	Demolish Misc. Warehouse Buildings PBS (5335, 9203, 9204)	400	Deferred from FY11
12	2011-002	Demolition of SPF Sewage Treatment Plant, Building No. 8336, Plum Brook Station	1,200	Deferred from FY11
12	2011-003	Demolition of Buildings 5412, 8134 and 8931, Plum Brook Station	700	Deferred from FY11
12	2011-016	Demo' of B Boiler and Steam Accumulator Foundations	600	Deferred from FY11
12		Demo of K - Site Bldg. 2812, 2813, 2831	600	
		FY12 Total	**4,000**	

		FY13 Program Projects		
13		Demolish K-Site Test Building no. 2811	2,000	Design in FY12
13		Demolish SPF Security Building	250	Moved by HQ from '15 to '13
13	2012-006	Demolish Recreation Shelters, PB	100	
		FY13 Total	**2,350**	

		FY14 Program Projects		
			0	
			0	
		FY14 Total	**0**	

		FY15 Program Projects		
			0	
			0	
		FY15 Total	**0**	

		FY16 Program Projects		
16		Deconstruction of Air Compressor Building No. 5131, PBS	250	
16		Demolish Misc. Ammo Igloos, PBS	1,500	Project Added 11/2010
		FY16 Total	**1,750**	

		FY11- FY16 Total	**13,660**	

		Out Year Program Projects		
			0	
			0	
		Out Year Total	**0**	

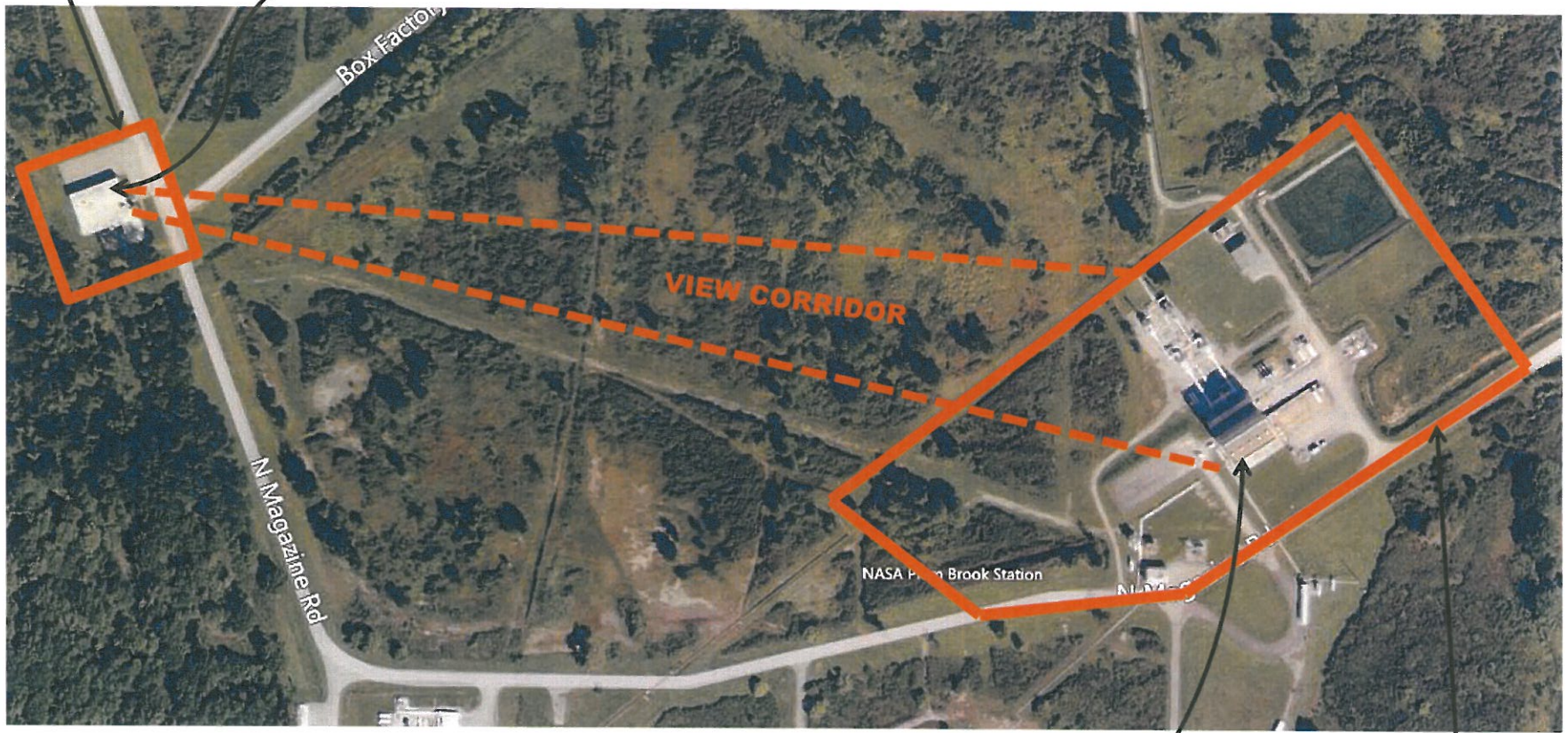
Attachment D

View Corridor for the Space Propulsion Research Facility (B2)

at

Plum Brook Station

B2 Boundary


SPRF Control Building Boundary
SPRF Control Building
VIEW CORRIDOR
N Magazine Rd
SPRF Test Building
SPRF Test Building Boundary
N
W
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S