OHIO HISTORICAL SOCIETY
Ohio Historic Preservation Office

OHIO HISTORIC PRESERVATION OFFICE
RESOURCE PROTECTION AND REVIEW

Section 106 Review Project Summary Form

For projects requiring a license from the Federal Communications Commission, please use FCC Forms 620 or 621. DO NOT USE THIS FORM.

SECTION 1: GENERAL PROJECT INFORMATION

All contact information provided must include the name, address and phone number of the person listed. Email addresses should also be included, if available. Please refer to the instruction or contact an OHPO review (mail to : Section 106@ohiohistory.org) if you need help completing this Form. Unless otherwise requested, we will contact the person submitting this Form with questions or comments about this project.

Date: **January 2012**
Name/Affiliation of person submitting form:
Leslie A. Main
Historic Preservation Officer
NASA Glenn Research Center
Mailing Address:
NASA Glenn Research Center
Facilities Division
21000 Brookpark Road, Mail Stop 21-1
Cleveland, OH 44135
Phone/Fax/Email: **(216) 433-6345**

A. Project Info:

1. This Form provides information about:
   New Project Submittal:
   Yes

   Additional information relating to previously submitted project:
   No

2. Project Name:
   Demolition of Bldg. # 24, Special Projects Laboratory

3. Internal tracking or reference number used by Federal Agency, consultant, and/or applicant to identify this project (if applicable):
   2012-002

B. Project Address or vicinity:
NASA Glenn Research Center – Lewis Field
21000 BrookPark Road
Cleveland, OH 44135
(216) 433-6345

C. City/Township:
BrookPark, Ohio

D. County:
Cuyahoga

E. Federal Agency and Agency Contact. *If you do not know the federal agency involved in your project, please contact the party asking you to apply for Section 106 Review, not OHPO, for this information*. *HUD Entitlement Communities acting under delegated environmental review authority should list their own contact information.*
National Aeronautics and Space Administration (NASA)
Leslie A. Main
Historic Preservation Officer
NASA Glenn Research Center
Facilities Division
21000 Brookpark Road, Mail Stop 21-1
Cleveland, OH 44135
(216) 433-6345

F. Type of Federal Assistance. *List all known federal sources of federal funding, approvals, and permits to avoid repeated reviews.*
NASA

G. State Agency and Contact Person (if applicable):
(NA)

H. Type of State Assistance:
None

I. Is this project being submitted at the direction of a state agency **solely** under Ohio Revised Code 149.53 or at the direction of a State Agency? *Answering yes to this question means that you are sure that no federal funding, permits or approvals will be used for any part of your project, and that you are seeking comments only under ORC 149.53.*
No

J. Public Involvement- Describe how the public has been/will be informed about this project and its potential to affect historic properties. Please summarize how they will have an opportunity to provide comments about any effects to historic properties. (This step is required for all projects under 36 CFR § 800.2):
Demolition of the project will be posted in:
- **NASA newsletter, Aerospace Frontier**
- **City of Cleveland**
- **City of Brook Park**
- **City of Fairview Park**

- **Cleveland Hopkins International Airport**
- **Cleveland Public Libraries**
- **Cuyahoga County Library - Branchs**
  Fairview Park
  North Olmsted
  Olmsted Falls
  Brook Park

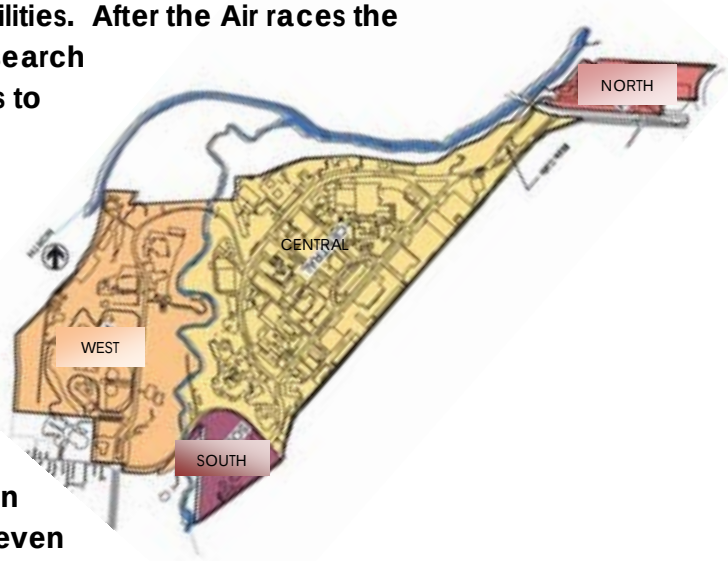
K. Please list other consulting parties that you have contacted/will contact about this project, such as Indian Tribes, Certified Local Governments, local officials, property owners, or preservation groups. (See 36 CFR § 800.2 for more information about involving other consulting parties). Please summarize how they will have an opportunity to provide comments:

- **No known Tribal Historic Preservation Offices (THPO)**

SECTION 2: PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Provide a description of your project, its site, and geographical information. You will also describe your project's Area of Potential Effects (APE). Please refer to the Instructions or contact an OHPO reviewer if you need help with developing the APE or completing this form.

NASA Glenn Research Center is situated adjacent to the western boundary of the Cleveland Hopkins International Airport in Cleveland, Ohio and Cuyahoga County. The Metropolitan Park District borders Glenn on the West and North sides. The City of Fairview Park, Ohio borders Glenn on the North also and The City of Brook Park, Ohio borders Glenn on the South side. Glenn. The center is divided into four general areas; Central, South, West and North and comprises 350 acres of land. It contains more than 150 buildings and over 500 specialized research and test facilities. After the Air races the site was transformed into a World-Class research laboratory and quickly made contributions to the war efforts.



The Jet Propulsion Static Laboratory (JSPL), Building 24, was added to the NACA's Aircraft Engine Research Laboratory (AERL) in 1943. The AERL designers originally planned to have five main facilities, but the Icing Research Tunnel and the JSPL were added to the design well after construction of the lab began now making a total of seven facilities. The AERL was intended to study and improve reciprocating engines. It included two large test facilities for testing full-scale piston engines, the Altitude Wind Tunnel (AWT) and the Engine Propeller Research Building. The lab's research divisions were also organized to tackle the problems associated with the piston engine. The divisions were Engine Installation, Superchargers, Engine Components, Engine Research, Fuels and Lubricants, Thermodynamics, and Flight Research.

Unbeknownst to the AERL engineers, and most of the NACA personnel at Langley, was that a new, more powerful type of aircraft engine had been developing in Europe. So while the NACA was designing its state-of-the-art engine lab in Cleveland, the new turbojet engine was rendering most of the test equipment obsolete. Although the Germans and British had been independently developing the jet engine for years, its sudden emergence in American consciousness in 1941 created a near-crisis situation.

The new JPSL was hurriedly built along the fence line between the AERL and Cleveland Municipal Airport that summer. The facility was completed in September except for the barbed wire fencing. It was equipped to measure thrust, pressures, temperatures, heat transfer, plastic flow of turbine discs and the cooling, vibration, and rupture of turbine blades.

JSPL was an inconspicuous one-story structure isolated from the other AERL facilities. It consists of approximately 19,000 square feet (gross) of space. Most of the building is comprised of laboratory, shop and technical space. The primary occupants of the building are members of the Research and Technology Directorate, Materials Division, and Structures and Acoustics Division.

The building is a combination of several additions with the original structure constructed in 1943. The additions were completed between the years of 1945 through 1971. The original structure was a basic rectangular wood structure that was constructed around two reinforced concrete test cells Test Cells 1 and 2, and an adjoining control room. The foundation consisted of a concrete spread footing and vertical concrete block walls below grade. The floor is a concrete slab on grade. The interior and exterior walls and ceilings were constructed with wood stud in platform style construction covered with gypsum wall board and transite panels. 2 x 14 inch deep wood joists support the roof structure of the main building.

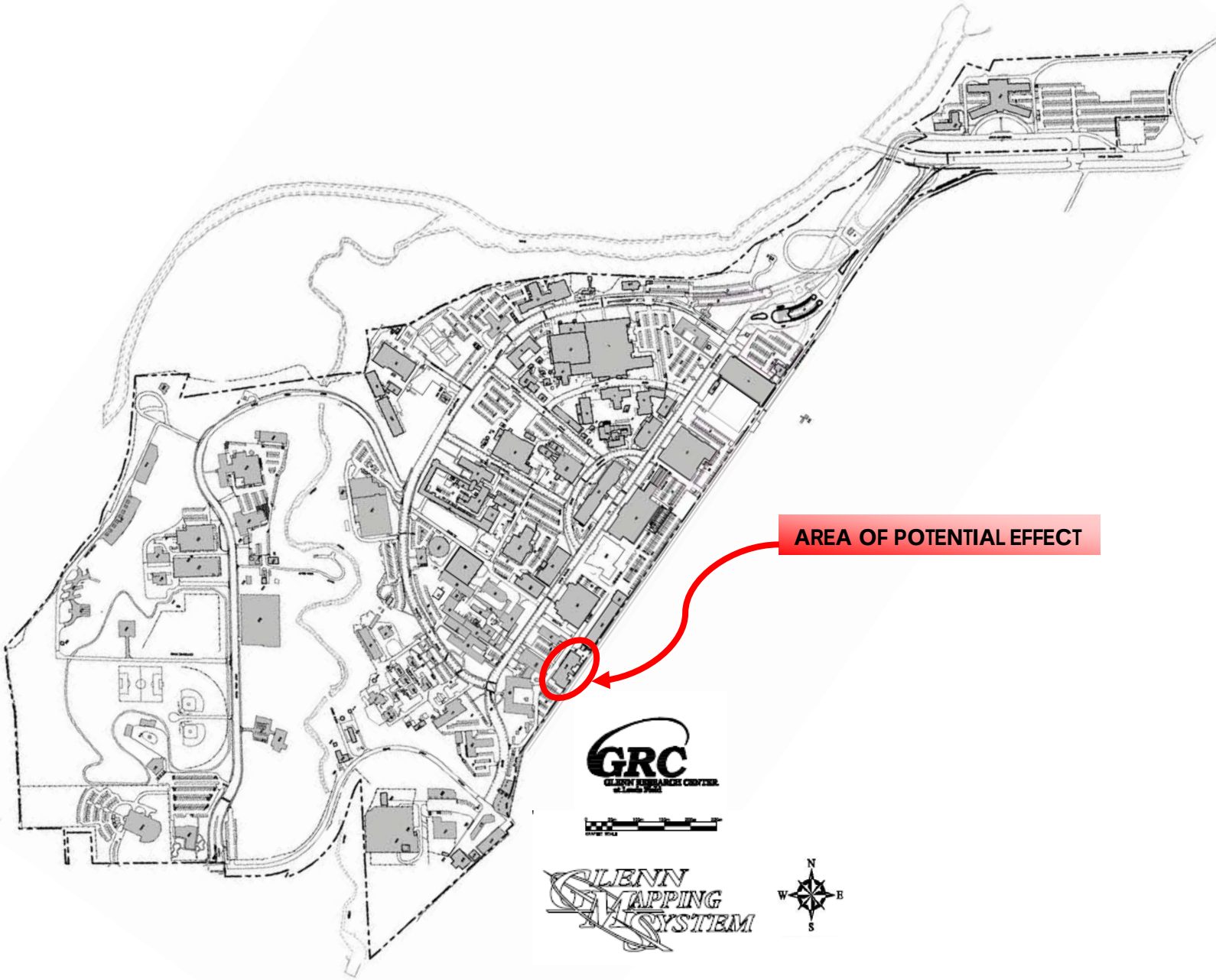
JSPL grew to six instrumented turbojet test cells, three spin-pit facilities, and a 500kw heat transfer facility. Its purpose was to study the performance of full-scale turbojet engines, afterburners, and turbine blades. The facility permitted the study of heat transfer, turbine rupture, blade cooling and vibration. There were three control rooms, a manometer room, and three shop areas. The test cells had acoustical housings around their exhaust pipes. Other equipment included a 10-ton crane, 500-horsepower air compressor, three vacuum pumps, a 2-ton cardox tank, three induction heating units, nine large fuel tanks, and basic utility services. During the 1950s, the JPSL went on to study other important engines.

With the foundation of NASA in October 1958 the JPSL soon became used for a variety of space related test rigs. A Cryogenic Insulation Test Tank, Thermal Fatigue Rig, and Gamma Ray Radiation Pool were installed in 1959. The JPSL also was used in support of the Zero Power Reactors in the nearby Materials and Stress Building. Hypervelocity Vacuum Range in 1961. High-temperature Erosion Corrosion Facility. By early 1963 the facility was renamed the Special Projects Laboratory. It included a Vacuum Induction Melting and Casting Facility. The overhead exhaust pipes were removed between 1960 and 1963. It appears the spin pits were removed by 1967 and Shop Areas 2 and 3 were enclosed with the main hallway extended the length of the building.

In the mid 1960s the facility returned to turbojet studies. In 1968 and 1969 Brayton Engine Assembly was performed. The J-85 returned in the early 1970s on an Experimental Turbojet Stand D. and various burner rigs were used throughout the 1970s. Ballistic Impact Test Rig. T-63 Test Rig. Automotive Regenerator Test Fixture. Turbine Erosion Test Rig.

By the mid-1970s the JPSL was used for atmospheric testing of J85 engines, erosion and corrosion of engine components using high-speed exhaust gases up to Mach 1, vacuum and atmospheric oxidation studies, thermal shock from 0 to 2500 degrees Fahrenheit, reentry studies at 6000 degrees Fahrenheit and 10-6 Torr, ion sputtering, and refractory coating studies.[i]

In 1971 Cell No. 1 control room was expanded for the Low Cost Engine Program. By the mid-1990s the shop areas were further segmented. Four small rooms were added in the main hallway and half of the main shop area was divided into two rooms.


AREA OF POTENTIAL EFFECT
GRC
GLENN RESEARCH CENTER
GLENN MAPPING SYSTEM
N
W
E
S

JURISDICTION TRANSFER MAP
NASA Glenn Research Center at Lewis Field

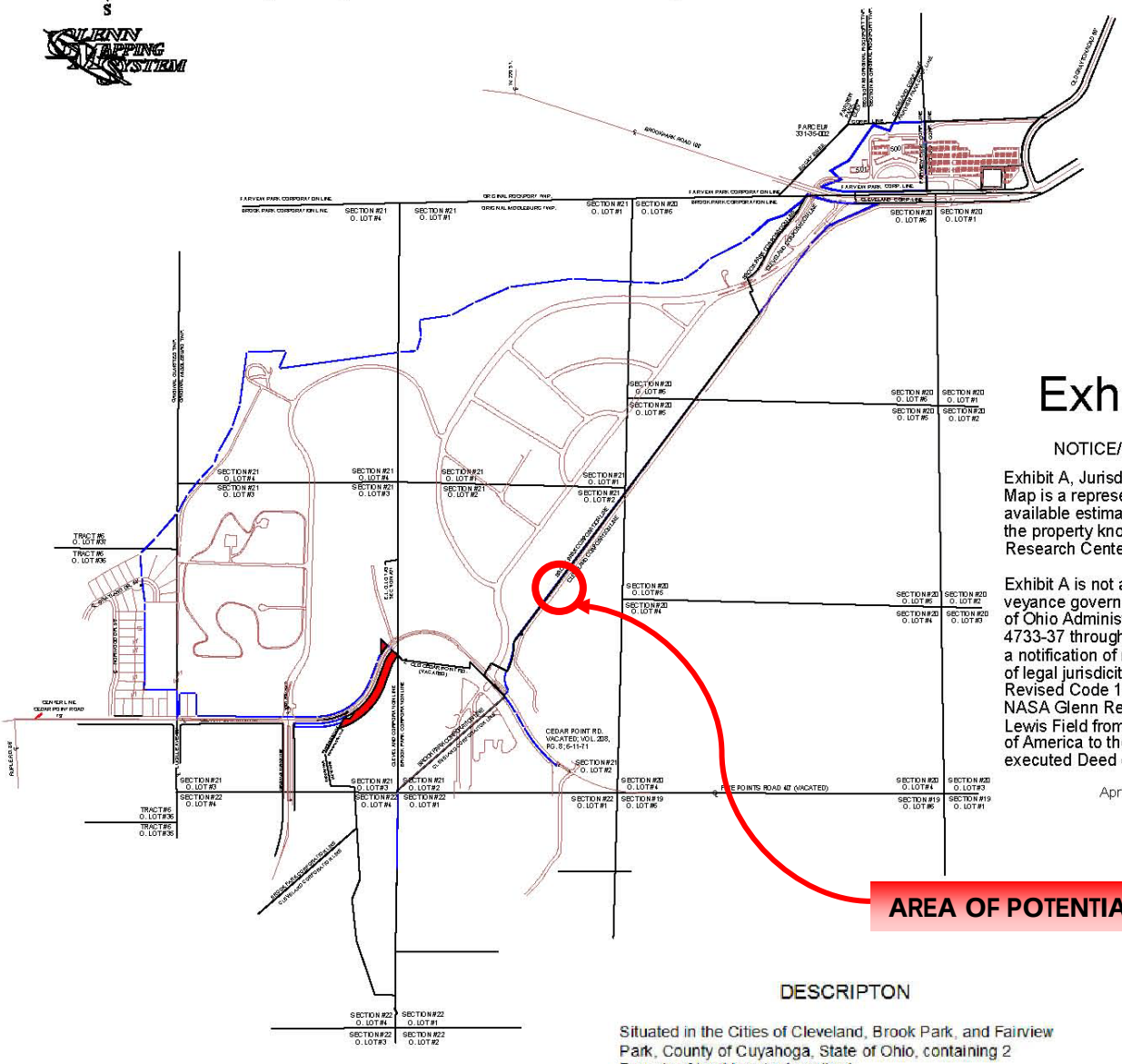


Exhibit A

NOTICE/DISCLAIMER

Exhibit A, Jurisdictional Transfer Map is a representation of the best available estimate of the scope of the property known as NASA Glenn Research Center, Cleveland, Ohio.

Exhibit A is not an instrument of conveyance governed by the standards of Ohio Administrative Code Sections 4733-37 through 4733-37.07; but is a notification of record of the transfer of legal jurisdiciton pursuant to Ohio Revised Code 159.04(B) of the NASA Glenn Research Center at Lewis Field from the United States of America to the State of Ohio via an executed Deed of Cession.

April 8, 2011

DESCRIPTON

Situated in the Cities of Cleveland, Brook Park, and Fairview Park, County of Cuyahoga, State of Ohio, containing 2 Parcels of land herein described:

PARCEL 1

Being part of Original Middleburgh Township Section Nos. 20, 21, and 22 and generally described as bounded by Cleveland Hopkins International Airport to the east, a line about 660 feet south of the north line of Section 22 to the South, Cuyahoga Metropolitan Park to the West, and Brookpark Road to the north, being bounded and described in the metes and bounds beginning at a point 30.00 feet North 0° 03' 51" East of the intersection of the centerlineof Cedar Point Road (width varies) with the Centerline of Lucille Avenue (60 feet wide) and containing 342.2 acres of land more or less.

PARCEL 2

Being part of Original Rockport Township Section Nos. 4 and 5, generally bounded by Brookpark Road to the South and the Cuyahoga Metropolitan Park to the west, being bounded and described in the metes and bounds beginning at a point in the northerly line of Brookpark Road (100 feet wide) N 0° 55' 50" West, 50.00 feet, from a monument Box near the entrance to Parcel 1 and containing18.9 acres of land more or less.

A. Does this project involve any Ground-Disturbing activity:
(If **Yes**, you must complete all of Section 2.A. If **No**, proceed directly to Section 2. B.)

1. General description of width, length and depth of proposed ground disturbing activity:
Yes. The foundations of the building, which are 226'-0" x 102'-2" x 1'-3" thick, will be removed 2'-0" below grade. Existing asphalt pavement, concrete pads curbs and bollards will be removed also.

2. Narrative description of previous land use and past ground disturbances, if known:

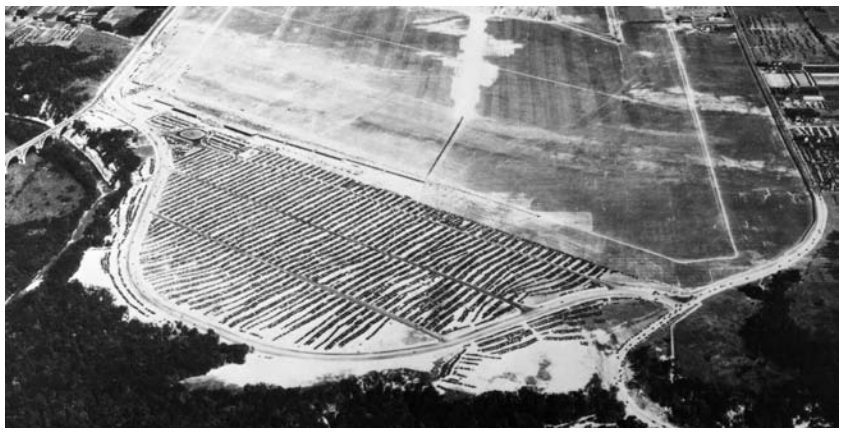
Air Races

In 1920, the idea of an Air Show first came to America from Europe when Joseph Pulitzer, publisher of the *New York World*, put up the money for a race on Long Island's Mitchell Field. Pulitzer's goal was to reawaken interested in aviation, which was suffering from post WWI apathy.

The event circulated to different cities for nine years and was finally brought to Cleveland in 1929 by a group of local businessmen headed by Louis W. Greve and Frederick C. Crawford. Greve was president of the Cleveland Pneumatic Tool Company, which made the hydraulic undercarriages that held the wheels on airplanes. Crawford was general manager and later president of Thompson Products Inc., now a part of TRW Inc.

The 1929 Cleveland National Air Races had full civic support not only from the City Manager W. R. Hopkins but from the Cleveland Chamber of Commerce, major industries, the city and the nation's military air arms. Numerous local business and hotels were approached to underwrite the event and purchase entertainment tickets.

The event was a 10-day, August 24 – September 2, sensation setting the highest standard for Air Shows with amazing demonstrations, size, duration and attendance. The inauguration ceremonies opened with a downtown parade. An estimated 300,000 spectators from all over the country watched 200 floats, 21 bands and 1,500 marchers strut down Euclid Avenue as three Goodyear blimps flew overhead. In conjunction with the Air Show, a $3,000,000 display of planes filled Cleveland's Public Auditorium. Over 100,000 spectators attended the opening day of the Air Races. Cleveland Hopkins International Airport, named after the city manager, opened four years earlier as the first major municipal-owned airport in the world. It covered 1,050 acres. It had well-lit runways and level surfaces free from hazards made it an ideal location for such races. The city built permanent grandstands and there were hangers available for visiting aircraft. The airport was so large that the Air Races could take place without interfering in normal airport operations.



Aerial view of parking for Air Races

In 1929, airplanes were still considered something of a science fiction fantasy; therefore, the exciting flying events were reported in newspapers around the world. There were closed-course pylon races and cross-country races from as far away as Log Angeles, Miami and Toronto; all timed to reach Cleveland on different days of the show. Women pilots, including the already famous Amelia Earhart, raced in a special "Powder Puff Derby" from Santa Monica, California, to Cleveland.

It was the closed-course racing that provided the most thrills for the fans in the stands. The Thompson Race, the first free-for-all closed-course race, was five laps around a 10-mile circuit. Six pilots were killed during the 1929 event. All but one pilot died during cross-country trips away from Hopkins Airport. Thomas Reid crashed in nearby Fairview Park trying to set a new solo endurance record. Cleveland truly was the aviation capital of the universe for those 10 days.

In 1930 the races were held in Chicago, but the National Aeronautical Association which licensed the races returned the show to Cleveland on the basis of its 1929 success. The Cleveland show turned a profit. By 1931 the closed-course races and speed dashes had replaced most of the cross-country races. It was the danger element, just like the Indy 500, which kept the crowds coming back.

In 1934 the Depression had cut the purses and the show had shrunk to a Labor Day weekend festival, similar to today's Air Show. It was also in 1934 that the first closed-course racer went down.

The Air Races continued to be successful despite the Depression. Therefore, the National Aeronautical Association gave Cleveland a five-year option on the event. However, in 1936, the expansion at Cleveland Hopkins Airport forced the races to move to Los Angeles. The Thompson Race returned the next year, and it proved to be the most exciting yet.

In 1938 the National Aeronautical Association announced rule changes to what was becoming known as the Cleveland Air Races. There would only be two high-speed events, the Thompson and Greve races.

As the war took shape in Europe, it became difficult for the pilots to gain financial support necessary for the increasingly sophisticated planes. In addition the military was withdrawing its support from the Air Show industry and there were no new airplane designs. As America geared up its war machine the races were discontinued.

Over the years the publicized accidents and deaths linked with the races were often blamed for hampering the airplane's evolution as a means of transportation and communication. However, the races stimulated engine and structural innovation, which helped America, win the war.

After the war the Aircraft Industrial Association, an aircraft manufactures trade group, brought back the races to Los Angeles and Cleveland to showcase the advances made during the war. Cleveland once again obtained a five-year franchise for the event.

In 1949 races were overshadowed by a tragedy. A plane flipped upside down and crashed into a Berea home, killing a young mother and her baby. It was the first time that anyone other than a participant was killed.

The Defense Department budget cuts halted military participation in future shows. After 20 years of thrills and spills the National Air Races closed its doors.

Government Should Do Research

Glenn was founded in 1941 by the National Advisory Committee for Aeronautics (NACA), the precursor to NASA, and was initially called the Aircraft Engine Research Laboratory (AERL). In 1958 NACA changed to NASA. After several more name changing, in 1999 it received its current name, NASA John H. Glenn Research Center at Lewis Field, Glenn Research Center (GRC) for short. The center was named in honor of former senator and astronaut, John H. Glenn. He was an Ohioan who was the first American to orbit earth when he piloted "Friendship 7" around the globe three times in 1962. Lewis Field is named after NACA first executive director, George W. Lewis. He was the director of aeronautics.

Early Construction

NACA was a small civilian research organization highly regarded in the aviation community but unknown to the public. A 1915 Naval Appropriations Bill created the organization and commissioned them to keep close relationships with the aircraft industry to supervise and direct the scientific problems of flight and develop a view to their solution. George Lewis helped bring respect to the organization and made it a continuing federal institution. He was an excellent administrator and technical leader. At this time NACA had not establish a Cleveland research center location, so Lewis became a liaison between NACA and Langley Laboratory.

NACA started a wartime research program and it was believed that the best research was applied science. Lewis began to build respect with the military and the aircraft industry. NACA went before the US House of Representatives for Appropriations to gain support for an additional research facility. He stressed that Langley was limited and that private industry did not conduct the necessary research. He also pointed out that the government does not compete with the private sector. Lewis made the case for a new research facility. He wanted it to have an altitude wind tunnel and mentioned that one did not exist anywhere in the world. He also stated that there was very little scientific engine research being done in the United States and that the government was the best choice to do the research. The government is impartial and it would tackle problems to the entire industry and that the information was equally accessible to all companies. Government research was intended to fill a void. It was approved to establish a new NACA Aircraft Engine Research Laboratory.

Bldg. 24 Early Construction

NACA chooses Cleveland for new lab location

There were many good qualities about Cleveland that were brought to the attention of NACA. To win the bid and have the new research facility located in Cleveland, Ohio The Cleveland Chamber of Commerce moved into high gear. It knew Cleveland could use the job creation desperately since it was still recovering from the Depression. Companies were reluctant to locate their business in Cleveland because Cleveland was known for having tightly organized unions. The Chamber brought to light that Cleveland was located in the nation's industrial heart. It had at least 80-90 companies all catered to aviation in the Cleveland area. Cleveland was the connection between Pennsylvania coal fields and the iron in Minnesota, it had open hearth mills in the flats along the Cuyahoga River, highway connections, six major railroads servicing it, a dependable and plentiful electric company, it had its own water system and it was located on the Great Lakes that industrial companies used to transport product cheaply. The Chamber also pointed out that half the United States population and half of the countries manufacturer were within 500 miles of Cleveland.

The altitude wind tunnel planned for the lab required adequate power as well as ample water for cooling. It also need graduate engineers to be part of the research and development. Cleveland had excellent educators; Case School of Applied Science and Western Reserve University, now Case Western Reserve University. The presidents of both schools wrote letters to NACA describing their excellence in educational programs. There was one last concern the NACA required for a new lab location. There was a perceived danger that the United States might be attacked on either coast where NACA's other two laboratories were located, Ames Research Laboratory and Langley. The Midwest became the safest location. At this point Cleveland was looking promising in the selection, however, it still had stiff competition. With help from Crawford in negotiations, and the City of Cleveland making 200 acres of land available next to the Airport for $1.00/acre, and the electric company negotiating a lower rate, NACA selected Cleveland as its next new lab location.

3. Narrative description of current land use and conditions:

   Glenn Research Center is currently active and owned by NASA Glenn Research Center. Building 24 is currently being dissected of its equipment. The Equipment is either being relocated to other buildings at GRC or excess to other companies that have a need for the equipment.

   The condition of building 24 is as follows:

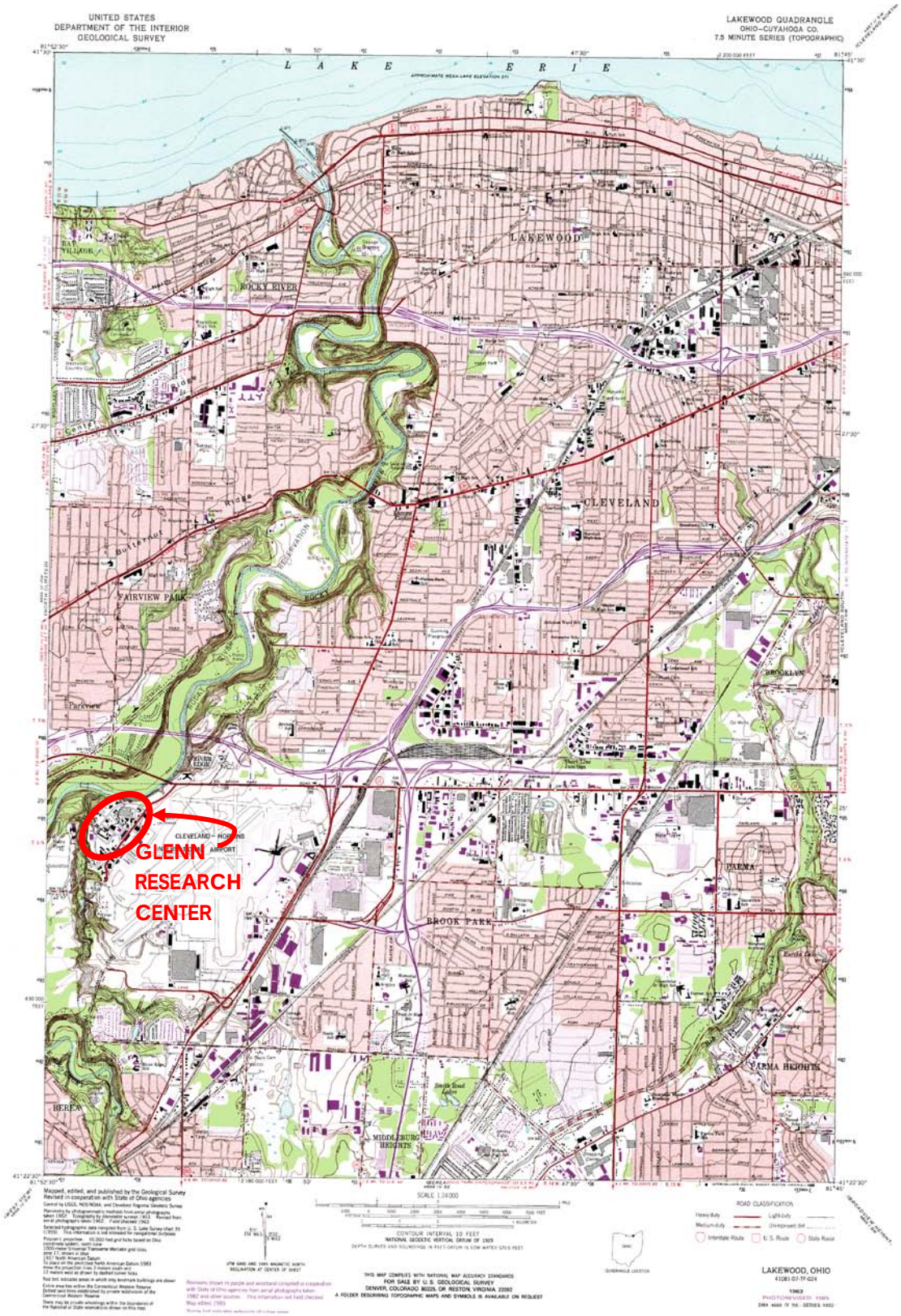
   a. **It does not meet ADA requirements regarding accessibility of physically challenged employees who may be working in the building.**
   b. **The restrooms are not ADA compliant and there is no women restroom at all.**
   c. **The interior partitions, ceilings and floor finishes are very worn and unserviceable.**
   d. **The doors and frames are worn with inadequate hardware.**
   e. **The entire building is not adequately insulated**
   f. **Domestic Water is in critical need of replacement. There have been numerous leaks**

g. **The potable water and non potable water are old and the piping is galvanized that should be replaced.**
h. **There is no fire suppression in the building, except for a few of the test cells that us CO2 for fire suppression.**
i. **The HVAC system in the building is outdated and needs frequent repairs and lacks adequate controls. The outdoor air requirements, ventilation, need to be brought up to code**
j. **Steam piping and valves are old and require replacement**
k. **The electric power system does not comply with current National Electrical Code NEC and Glenn standards. The electrical panel boards are outdated. The emergency lighting and exit signs are also outdated and inadequate.**
l. **The lighting, indoor and outdoor, are outdated and do not comply with Glenn standards and federal mandate regarding energy efficiencies.**
m. **The building has two smoke detection systems. One is updated and the other is old and parts are no longer available.**
n. **The life safety system is not in compliant with current codes**
o. **There is asbestos containing material, ACM, in the building inside piping insulation, floor tiles, walls, floor mastic and ceiling tiles. Most of ACM is in good condition but the areas that are not have to be abated.**
p. **There is lead paint in the building above the allowable .06% and has to be removed.**
q. **The building doesn't meet new security regulations created after 9-11 for government buildings. Building 24 is located on the border of Cleveland Hopkins International Airport and NASA. Current setbacks are not implemented.**

This is an abbreviated description of the condition of Building 24 from a previous study by Facilities Test Division. There were a variety of analyses look at for renovating the building, however, they all were more expensive that the return value of the building. The building has gone under many expansion and reuses in its life. Overall the building is in a deteriorated state and it has out live additional uses, therefore, it has been slated for demolition. Significant development in research did occur in Building 24; therefore, a memorial will be placed on the site.

4. Does the landowner know of any archaeological resources found on the property?
A Cultural Resource Management Plan was developed in 2008 and it was determined that the potential for archaeological resources at this site are less sensitivity around Building 24.

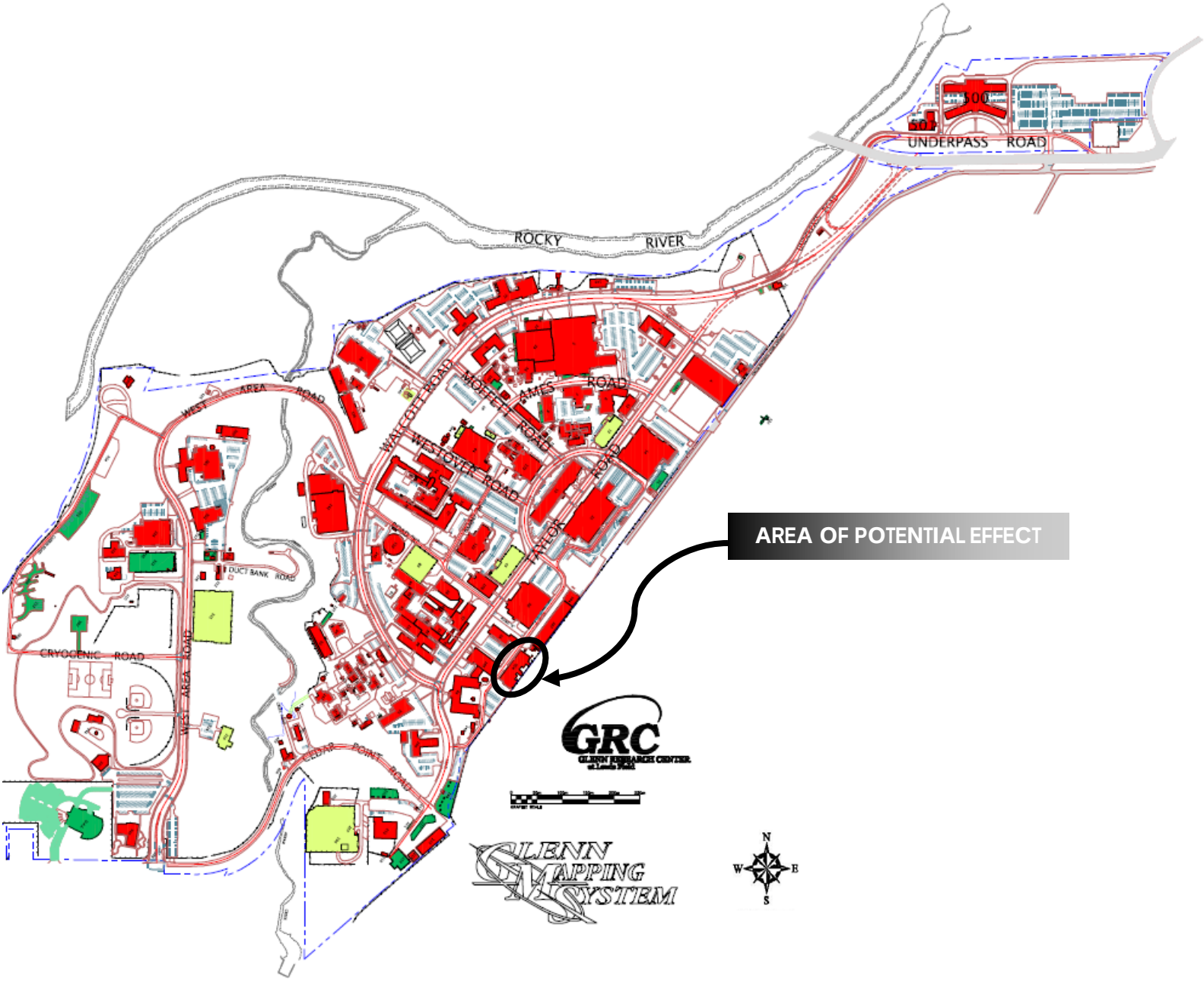
B. Submit the exact project site location on a USGS 7.5-minute topographic quadrangle map for all projects. Map sections, photocopies of map sections, and online versions of USGS maps are acceptable as long as the location is clearly marked. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map:




BM 759
RIVER EDGE
640
BM
BROOK
780
Radio
Towers
CLEVELAND - HOPKINS
INTERNATIONAL AIRPORT
750
Radio
Tower
770
N
W
E
S
AREA OF POTENTIAL EFFECT

1. Township/City/Village Name:
   City of Brook Park
   6161 Engle Road
   Brook Park, Ohio 44142

C. Provide a street-level map indicating the location of the project site; road names must be identified and legible. Your map must show the exact location of the boundaries for the project site. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map

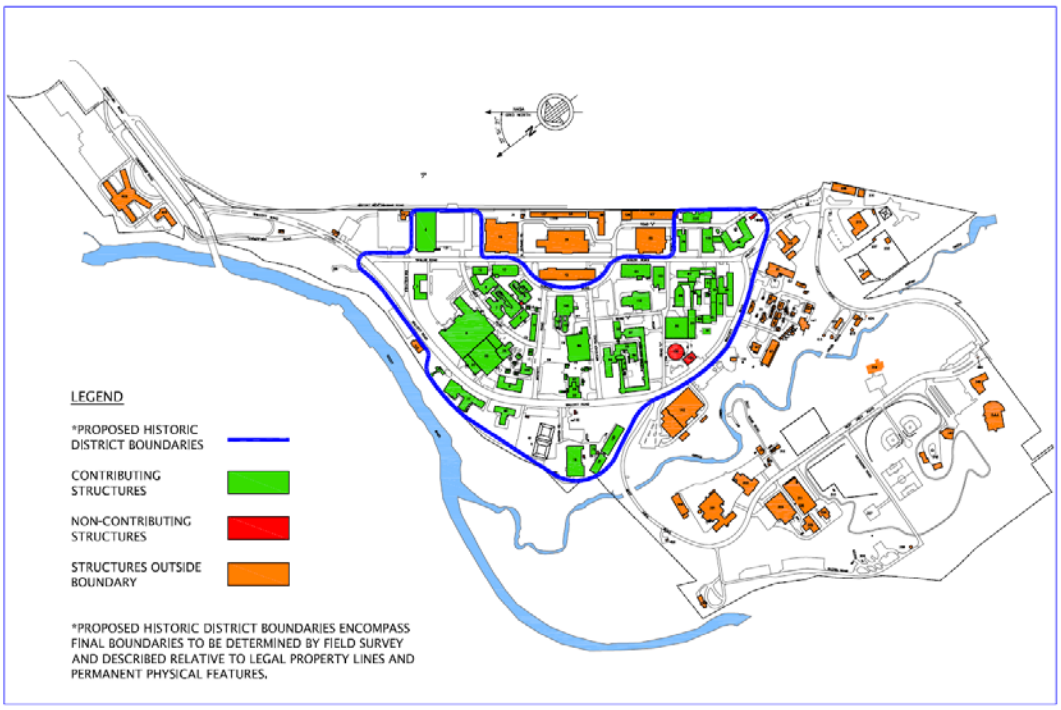


D. Provide a verbal description of the APE, including a discussion of how the APE will include areas with the potential for direct and indirect effects from the project. Explain the steps taken to identify the project's APE, and your justification for the specific boundaries chosen:
The area of potential effect of Building 24 comprises the building, pavement and the foundation 2'-0" deep.

E. Provide a detailed description of the project. This is a critical part of your submission. Your description should be prepared for a cold reader who may not be an expert in this type of project. The information provided must help support your analysis of effects to historic properties, not other types of project impacts. Do not simply include copies of environmental documents or other types of specialized project reports. If there are multiple project alternatives, you should include information about all alternatives that are still under active consideration:
The proposed action is to demolish Building 24, pavement and foundation, 2'-0"deep, in their entirety.

SECTION 3: IDENTIFICATION OF HISTORIC PROPERTIES

Describe whether there are historic properties located within your project APE. To make that determination, use information generated from your own Background Research and Field Survey. Then choose one of the following options to report your findings. Please refer to the Instructions and/or contact an OHPO reviewer if you are unsure about how to identify historic properties for your project.



NASA Glenn Research Center at Lewis Field
Historic District Determination

Recording the Results of Background Research and Field Survey:

A. Summary of discussions and/or consultation with OHPO about this project that demonstrates how the Agency Official and OHPO have agreed that no Field Survey was necessary for this project (typically due to extreme ground disturbance or other special circumstances). Please **attach copies** of emails/correspondence that document this agreement. You must explain how the project's potential to affect both archaeological and historic resources were considered.

There were no discussions with OHPO to date about Building 24.

B. A table that includes the minimum information listed in the OHPO Section 106 Documentation Table (which is generally equivalent to the information found on an inventory form). This information must be printed and mailed with the Project Summary Form. To provide sufficient information to complete this Section, you must also include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated in the project APE.

Attached is a copy of Section106 Documentation Table for Building 24

C. **OHI (Ohio Historic Inventory) or OAI (Ohio Archaeological Inventory) forms-** New or updated inventory forms may be prepared using the OHI pdf form with data population capabilities, the Internet IForm, or typed on archival quality inventory forms. To provide sufficient information to complete this Section, you must include summary observations from your field survey and background research. You must also include eligibility determinations for each property that was evaluated in the project APE

Attached are the Ohio Historic Inventory for Building 24 completed May 1996 and an update version completed October 2011

D. **A historic or archaeological survey report** prepared by a qualified consultant that meets professional standards. The survey report should meet the Secretary of the Interior's Standards and Guidelines for Identification and OHPO Archaeological Guidelines. You may also include new inventory forms with your survey, or update previous inventory forms. To complete this section, your survey report must include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated within the APE.

2008 Cultural Resource Management Plan determined that the potential for archaeological resources at this site is very scarce to none.

E. **Project Findings.** Based on the conclusions you reached in completing Section 3, please choose one finding for your project. There are (mark one):

☑ **Historic Properties Present in the APE**

Based on the four criteria for acceptance to the National Register of Historic Places, Building 24 meets <u>one</u> of the four: A

A - Events, Patterns in History
B - Significant Individuals
C - Architecture, Engineering, Design
D - Potential To Yield Information

SECTION 4: SUPPORTING DOCUMENTATION

This information must be provided for all projects.

A. Photographs must be keyed to a street-level map, and should be included as attachments to this application. Please label all forms, tables and CDs with the date of your submission and project name, as identified in Section 1. You must present enough documentation to clearly show existing conditions at your project site and convey details about the buildings, structures or sites that are described in your submission. Faxed or photocopied photographs are not acceptable. See Instructions for more info about photo submissions or 36 CFR § 800.11 for federal documentation standards.

1. Provide photos of the entire project site and take photos to/from historic properties from/towards your project site to support your determination of effect in Section 5.

2. Provide current photos of all buildings/structures/sites described.

B. Project plan, specifications, site drawings and any other media presentation that conveys detailed information about your project and its potential to affect historic properties.
Attached are the Ohio Historic Inventory for Building 24 completed May 1996 and an update version completed October 2011

C. Copies or summaries of any comments provided by consulting parties or the public.
No comments received to date.

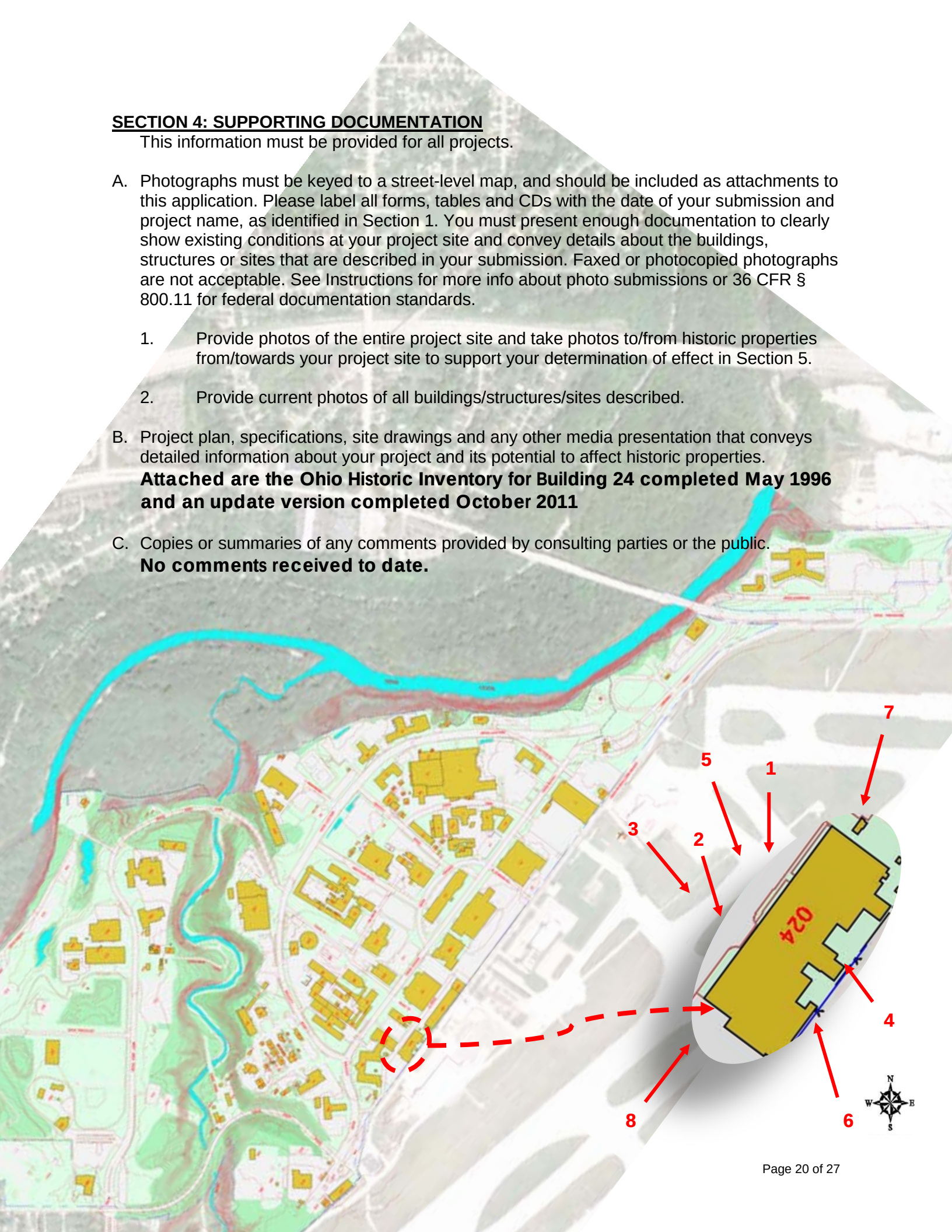


Photo 1
Special Projects Laboratory 1943 – Northwest Elevation (Front)

Photo 2
Special Projects Laboratory 1945 – Northwest Elevation (Front)

Photo 3
Special Projects Laboratory – Northwest Elevation (Front)

Photo 4
Special Projects Laboratory – Southeast Elevation (Back)

Photo 5
Special Projects Laboratory – Northwest Elevation (Front)

Photo 6
Special Projects Laboratory – Southeast Elevation (Back)

Photo 7
Special Projects Laboratory – North Elevation (Side)

Photo 8
Special Projects Laboratory – South Elevation (Side)

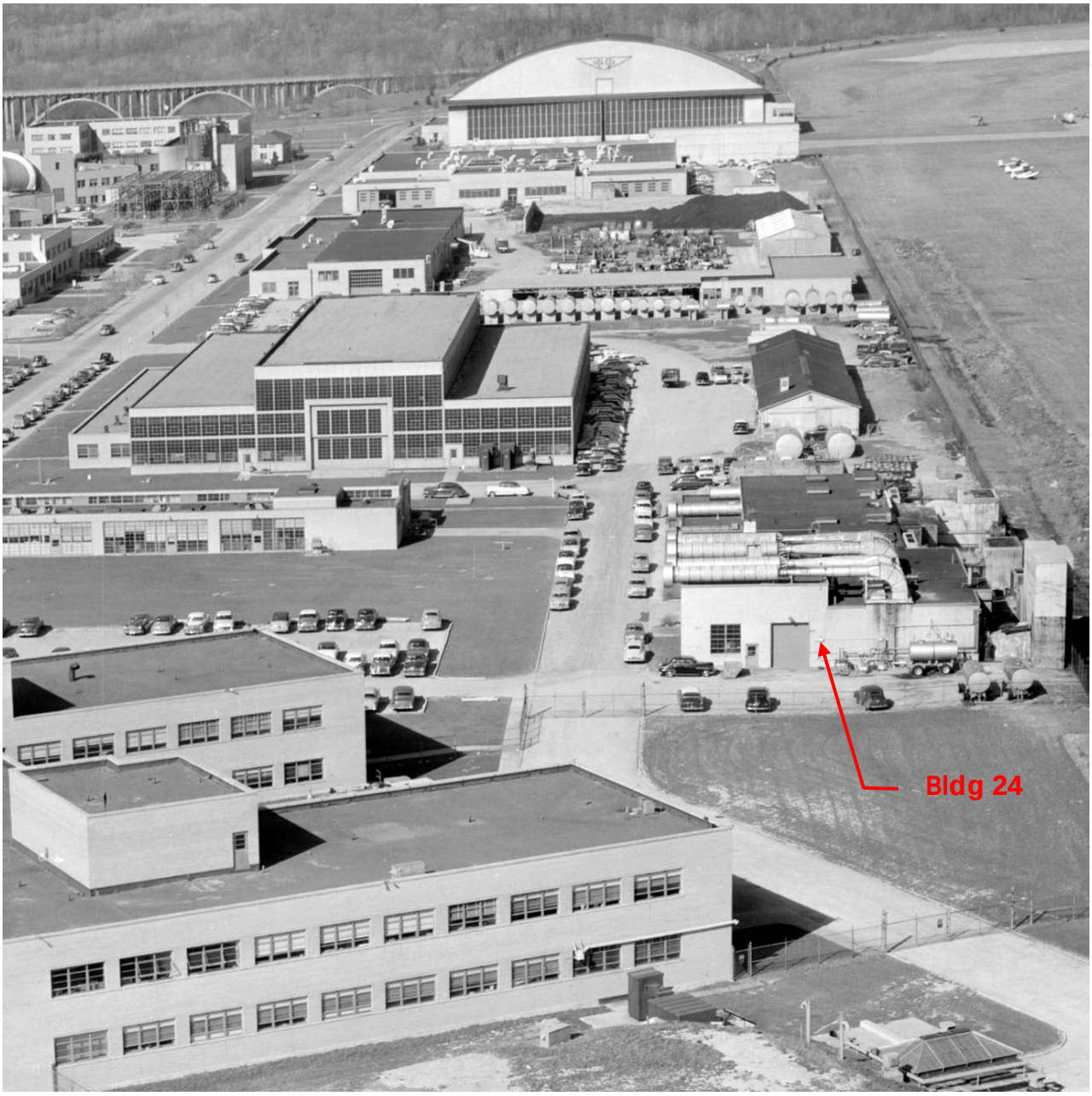


Photo of NASA Glenn Research Center

SECTION 5: DETERMINATION OF EFFECT

A. Request Preliminary Comments. For challenging projects, provide as much information as possible in previous sections and ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties, if the public has concerns about your project's potential to affect historic properties, or if there may be challenging procedural issues related to your project. Please be aware that providing information in all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

1. We request preliminary comments from OHPO about this project:
   No

2. Please specify as clearly as possible the particular issues that you would like OHPO to examine for your project (for example- help with developing an APE, addressing the concerns of consulting parties, survey methodology, etc.):
   None

B. Determination of Effect. If you believe that you have gathered enough information to conclude the Section 106 process, you may be ready to make a determination of effect and ask OHPO for concurrence, while considering public comments. Please select and mark one of the following determinations, then explain the basis for your decision on an attached sheet of paper:

☐ **No Historic Properties will be affected** based on 36 CFR § 800.4(d) (1). Please explain how you made this determination:

☐ **No Adverse Effect** [36 CFR § 800.5(b)] on historic properties. This finding cannot be used if there are no historic properties present in your project APE. Please explain why the Criteria of Adverse Effect, [36 CFR Part 800.5(a) (1)], were found not to be applicable for your project:

☑ **Adverse Effect** [36 CFR § 800.5(d) (2)] on historic properties. Please explain why the criteria of adverse effect, [36 CFR Part 800.5(a) (1)], were found to be applicable to your project. You may also include an explanation of how these adverse effects might be avoided, reduced or mitigated:

The adverse effects on Building 24 would be:

- **Its deteriorated condition.**
  It has no further program use, is no longer mission critical, is not cost effective to maintain and keep, and is uneconomically under-utilized by GRC. It is property that is being excess.

- **It is a contributing member of the historic district.**

Please print and mail completed form and supporting documentation to:
Ohio Historic Preservation Office
Attn: Mark J. Epstein, Department Head
Resource Protection and Review
1982 Velma Avenue
Columbus, OH 43211-2497

REFERENCES

Gray & Pape, Inc., 2002, Final Report for Task 2.1 – Supplemental Overall Cultural Resources Survey for the Central, North, and West areas of Lewis Field at the NASA Glenn Research Center, City of Cleveland, Cuyahoga County, Ohio

Gray & Pape, Inc., 2002, Predictive Model and Ground-Truthing Survey of Prehistoric and Historic Archaeological Resources at the NASA Plum Brook Station, Perkins, Huron, Milan, and Oxford Townships, Erie County, Ohio (Task 3.2) September 25.

Facilities Test Engineering Division 2002, Study for Rehabilitation of Special Projects Laboratory Bldg. 24

Gray & Pape, Inc. 2006, Cultural Resources Management Plan for NASA Glenn Research Center at Lewis Field and Plum Brook Station. Prepared for NASA/SAIC Environmental Management Branch, Cleveland, Ohio. Gray & Pape Project No. 05-13101

Gray & Pape, Inc. 2008, Cultural Resources Management Plan for NASA Glenn Research Center at Lewis Field and Plum Brook Station. Prepared for NASA/SAIC Environmental Management Branch, Cleveland, Ohio. Gray & Pape Project No. 05-13101

ACRONYMS

ACHP Advisory Council on Historic Preservation
APE Area of Potential Effects
CRMP Cultural Resource Management Plan
FOP Facility Preservation Officer
GRC Glenn Research Center
HPO Historic Preservation Officer
NACA National Advisory Committee for Aeronautics
NASA National Aeronautics and Space Administration
OHI Ohio Historic Inventory
OHPO Ohio Historic Preservation Officer