

National Aeronautics and Space Administration

Ames Research Center
Moffett Field, California 94035



July 15, 2022

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation Department of Parks & Recreation
1725 23rd Street, Suite 100
Sacramento, CA 85816

Attn: Mark A. Beason

Subject: Section 106 Consultation for the Building N226 Motor Pool Relocation Project, NASA Ames Research Center, Moffett Field, Santa Clara County, California

Dear Ms. Polanco:

The National Aeronautics and Space Administration (NASA) Ames Research Center (ARC) requests initiation of consultation under Section 106 of the National Historic Preservation Act of 1966 (54 United States Code §306108), as amended, for the Building N226 Motor Pool Relocation Project (project or undertaking) at the NASA Ames Research Park at NASA ARC, Moffett Field, Santa Clara County, California. NASA ARC has determined that this project constitutes an undertaking under Section 106.

In support of its responsibilities under Section 106, NASA ARC retained AECOM Technical Services, Inc. to conduct a technical study for this project. The study was conducted by cultural resources professionals who meet the Secretary of the Interior's Professional Qualifications Standards (48 Federal Register 44738). Enclosed for your review is a Section 106 Technical Memorandum, dated May 31, 2022, which includes detailed descriptions of the undertaking, the Area of Potential Effects (APE), identification efforts, and the affected historic properties, and concludes with an assessment of potential effects resulting from the undertaking, summarized below.

Description of the Undertaking

The project involves the relocation of the Motor Pool program to Building N226. The Motor Pool is currently located in Building N251 with an adjacent fuel station that would be demolished to make room for the new engineering facility at Building N278 (see OHP NASA_2020_0918_001 for previous Section 106 consultation). The Motor Pool supports ARC's mission through the maintenance of vehicles and equipment. Building N226, built in 1948 as the 6' x 6' Supersonic Wind Tunnel building, was identified as the optimal spot to relocate the Motor Pool, because it is on the NASA Ames Campus within the secure area of ARC, is currently

vacant, and has a compatible layout with existing bay doors that can accommodate large vehicles and equipment.

The project would modify the interior of the north wing of Building N226 to accommodate the Motor Pool. Two sections of the existing 6"-thick first floor concrete slab in the north wing would be removed and replaced with 1'- thick concrete slabs for auto lift foundations. One section of concrete measures 14' by 5', and the other is 13' by 4'. Other first floor modifications include the installation of two new hydraulic auto lifts and other maintenance equipment, and the removal of an existing rollup door on the south wall of the north wing. The door opening would be infilled with a 2-hour wall to separate occupancies in the building. Modification of the second floor of the north wing is limited to the enclosure of an exhaust shaft that would extend from the first-floor facility to the roof of the north wing.

Alterations to the exterior of Building N226 envelope are limited to the modification of a multi-lite metal sash window north of the primary entrance in the center section on the façade. One panel of the window would be replaced with a louvered vent. Vertical elements that imitate the window mullions of the removed window would be affixed to the vent to retain visual cohesion.

The project would construct a new fuel station and car wash rack northwest of Building N226 in a paved area south of Parsons Avenue. This includes removal of a sewer line and associated cleanouts; a waterline; a storm drain inlet; a curb on the west side; and asphalt and the underlying base. Project work at this location consists of new concrete pavement in the fuel station and car wash rack; a concrete curb along the east side of a paved area immediately south of the fuel station; a gutter along the north side of the new paved area; and a 12'-tall and 12"-thick concrete masonry unit (CMU) fireproof wall between the fuel station and the car wash rack. The fuel station would include two new 2,000-gallon fuel tanks and diesel and gasoline fueling pumps on a 1'-thick concrete slab surrounded by a 6'-tall security fence. The car wash rack structure would be immediately adjacent to the new fuel station and separated by the fireproof wall. The car wash rack would consist of a steel-frame canopy measuring 25'-long by 22'-wide by 16'-tall on a 1'-thick concrete slab, plastic drop sheet siding, a water hose bib, electrical outlets, and drainage. New lighting would be installed for the fuel station and the car wash rack. The project would include approximately 170' of trenching up to 30" deep from the northeast side of Building N226 along Parsons Avenue for utility lines to connect the car wash and rack and fuel station, and approximately 140' of excavation up to 40" deep for sewer, storm drain, and water lines.

The project would also provide Americans with Disabilities Act (ADA)-compliant parking, sidewalk, and ramp improvements at the north, east, and south sides of Building N226. The parking area along the north side of Parsons Avenue would be re-striped and feature new site lighting and low-voltage electric vehicle (EV) charging stations. Approximately 1,330 square feet of sidewalks on the east side of Building N226 along DeFrance Avenue and on the south side to the parking lot would be replaced. The new sidewalks would match existing grades at tie-in points. Two detectable warning strips would be installed on the east side near the primary entrance on the façade (east side) and an ADA-compliant parking space and ramp would be installed on the south side. Minimal ground disturbance (6" to 12" deep) for the sidewalk replacement and installation of EV charging stations is anticipated.

Area of Potential Effects

The APE is defined to address both direct and indirect impacts on potential historic properties and encompasses areas that may be affected by both temporary and permanent construction activities (see Figure 3 in Appendix A of the enclosed technical memo). The APE is located within the NASA Ames Wind Tunnel Historic District and the potential NACA Ames Historic District (NACA District). It accounts for potential indirect effects on the districts but does not include the entire boundaries of the districts due to the project's scale.

For archaeological resources, the APE is limited to the project area, including areas of temporary staging and construction ground disturbance. The APE related to ground disturbance extends to a maximum vertical depth of approximately 40" below grade to install utilities and new foundations for the fuel station, car wash rack, hydraulic lifts, and EV stations, and sidewalk replacement.

For architectural resources, the APE is limited to a 75' buffer around the project area due to the relative scale and location of the project improvements. Any potential visual, audible, or atmospheric effects resulting from the project are unlikely to affect historic properties beyond Building N226's immediate surroundings. Above-ground activities include temporary staging, which is unlikely to have indirect impacts on historic properties; construction of the fuel station, car wash rack, and ADA-compliant sidewalk and parking improvements; interior rehabilitation of the north wing of Building N226; and replacement of a window panel in the center section on the façade of Building N226.

Affected Historic Properties

The APE overlaps the NASA Ames Wind Tunnel Historic District, which is listed in the National Register of Historic Places (NRHP), and the proposed NACA District, which NASA has determined eligible for the NRHP, and contains Building N226, which is a contributor to both districts. Currently vacant, Building N226 was the former 6' x 6' Supersonic Wind Tunnel.

Effects Assessment

The criteria of adverse effect were applied to the historic property in the APE, which includes Building N226 and accounts for potential effects on the NASA Ames Wind Tunnel Historic District and the potential NACA District. Adjacent historic properties and district contributors, Building N221 (National Full-Scale Aerodynamics Complex) and Building N227 (Unitary Plan Wind Tunnel), were also taken into consideration. The significance of these historic properties is primarily associated with research and development, important researchers, and exceptional engineering dating to the 1940s and continuing through the 20th century. This assessment of effects found that the proposed rehabilitation design for the Motor Pool and site improvements at Building N226 are consistent with the Secretary of the Interior's Standards for Rehabilitation. Motor Pool elements may be tangentially visible to Building N-221 (National Full-Scale Aerodynamics Complex) and Building N-227 (Unitary Plan Wind Tunnel), but the large-scale nature of these facilities would make any visual intrusion negligible in relation to these historic properties and the NASA Ames Wind Tunnel Historic District. The nearest contributing building in the proposed NACA District is 0.15-mile to the south. The proposed undertaking would not indirectly alter any of the characteristics of the historic properties in the APE. Furthermore, no archaeological resources, which may qualify as historic properties, are known to exist in the APE

and there is a low potential for unanticipated archaeological resources within the heavily disturbed vertical APE.

Finding of Effect

Based on the assessment conducted by qualified cultural resources professionals, NASA ARC has made a finding that the undertaking will result in No Adverse Effect.

Consultation Efforts

NASA ARC has not identified additional consulting parties for this Section 106 review but is making these findings available to the public via the NASA ARC Historic Preservation Office website (<https://historicproperties.arc.nasa.gov/section106.html>).

NASA ARC requests the State Historic Preservation Officer's concurrence on NASA's finding of No Adverse Effect for this undertaking pursuant to 36 CFR 800.5(b). Please provide a response within 30 days of receipt of this letter, as specified in 36 CFR 800.5(c).

Please feel free to contact me at Jonathan.D.Ikan@nasa.gov or (650) 604-6859 if you have any questions regarding this matter.



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Cc:

Ms. Rebecca Klein, NASA Deputy FPO Environmental Management Division NASA
Headquarters
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Enclosure: *Section 106 Technical Memorandum for the Building N-226 Motor Pool Relocation Project*. Prepared by AECOM, dated May 31, 2022.