Commission Action

July 13, 2017

PROJECT
Building Exterior, Vestibules, and Site Improvements - Cladding Replacement
National Air and Space Museum
Independence Avenue at 6th Street, SW
Washington, DC

SUBMITTED BY
Smithsonian Institution

REVIEW AUTHORITY
40 U.S.C. § 8722(b)(1) and (d)

NCPC FILE NUMBER
7585

NCPC MAP FILE NUMBER
1.41(38.00)44574

APPLICANT'S REQUEST
Approval of comments on revised concept design

ACTION TAKEN
Approved comments on revised concept design

The Commission:

Finds that Tennessee Pink Marble (limestone) is the most appropriate cladding material based on aesthetic and historic preservation criteria because it offers a combination of pattern and color range appropriate for a monumental building where the cladding is one of the main architectural expressions. The Commission also recognizes that these are not the only criteria informing the cladding decision.

Notes that the Smithsonian analyzed over eighty different stones, and several manufactured materials over the last two years, which resulted in a shortlist of five cladding options most compatible with the original design of the building. Selection criteria included aesthetic, historic preservation, technical performance, procurement, and risk.

Notes the shortlisted options included: Tennessee Pink Marble (Limestone), St. Clair Limestone, Echo Lake Granite, Colonial Rose Granite and Ultra High Performance Concrete.

Notes that since the shortlist was developed, the Smithsonian has conducted additional analysis regarding the technical performance of each option and has arrived at the following findings:

- Tennessee Pink Marble (Limestone) has technical performance issues both because of the building's metal frame and the stone itself; and therefore, it is not a long-term solution.
- Limestones have durability and maintenance challenges. Limestones are generally less resistant to pollutants, surface mold and algae growth; and require additional cleaning which can lead to surface damage.
- While a thicker panel of Tennessee Pink Marble (Limestone) or another limestone could address the issues associated with technical performance, there is no example of a successful long-term performance application of limestone on a light steel frame without masonry backup.

- Granite is more durable for a light steel frame application without masonry backup and provides a better long-term solution. Granite is also resistant to pollutants, surface mold and algae growth; and allows a more aggressive cleaning process.

Notes that the Smithsonian has selected Colonial Rose Granite as their preferred stone because they have found it provides the best overall value considering all the criteria.

Finds that while Colonial Rose Granite has a warm pink color comparable to the existing cladding, and is durable; it is also a very homogenous stone, lacking the wide range of color variation and horizontal striations that characterize Tennessee Pink Marble (Limestone) and make the museum's façade interesting.

Upon consideration of the Smithsonian's findings, supports Colonial Rose Granite as the preferred cladding alternative and strongly encourages increasing the percentage of stone panels with color variation and horizontal pattern in the design specifications to avoid a monolithic facade. If uniform panels must be used, disperse and minimize its use, increase tonal variation and avoid juxtaposing similar panels to achieve the randomness of the original façade.

Supports the sandblasted finish because it provides a timeless effect similar to the existing building.

Requests that the Smithsonian continue to consult with NCPC staff on any future mockup of Colonial Rose Granite to test different combinations of color pattern and veining, as well as the glazing mockup.

//Original Signed//	07/14/2017
Julia A. Koster	Date
Secretary to the National Capital Planning Commission	