

STAFF RECOMMENDATION

E. Keller

NCPC File No. 6645



**GODDARD SPACE FLIGHT CENTER
EXPLORATION SCIENCES BUILDING
Greenbelt, Prince George's County, Maryland**

Submitted by the National Aeronautics and Space Administration

March 30, 2006

Abstract

The National Aeronautics and Space Administration (NASA) has submitted preliminary and final site and building plans for a new Exploration Sciences Building at the Goddard Space Flight Center (GSFC) in Greenbelt, Maryland. The Exploration Science Building will be constructed on open ground in the East Campus of the Goddard Space Flight Center. This area of the campus has been identified for development in the GSFC master plan approved by the Commission in April 2003.

The Exploration Sciences Building is intended to support the needs of the newly created Exploration Sciences Directorate at GSFC by bringing together staff currently housed in older facilities across the GSFC campus into new, state of the art, laboratory and office space.

Commission Action Requested by Applicant

Approval of preliminary and final site and building plans pursuant to 40 U.S.C. § 8722(b)(1).

Executive Director's Recommendation

The Commission:

Approves the preliminary and final site and building plans for the Exploration Sciences Building at the Goddard Space Flight Center in Greenbelt, Maryland, as shown on NCPC Map File No. 3214.00(38.00)-41987.

* * *

PROJECT DESCRIPTION

Site

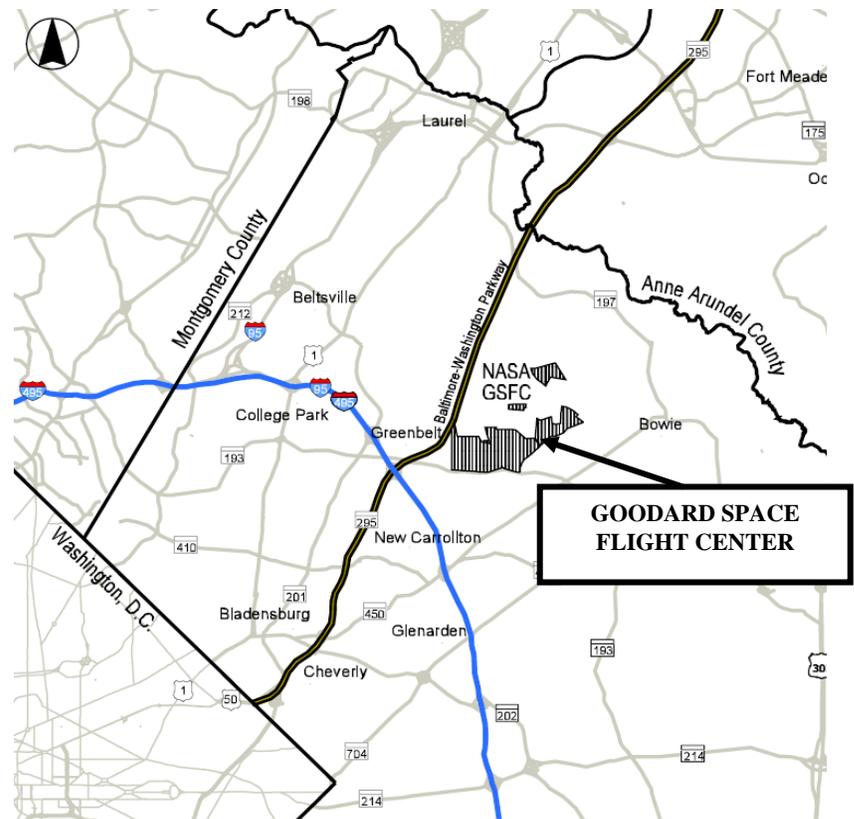
Goddard Space Flight Center (GSFC) is a 1,270-acre federal employment center focused on space exploration and is one of nine NASA centers that studies earth and space science. GSFC is located in Prince George's County, Maryland, north of Greenbelt Road, east of the Baltimore-Washington Parkway, south of the Beltsville Agricultural Research Center (BARC), and west of Good Luck Road and the relocated Soil Conservation Road that formerly bisected the campus.

The project site is approximately 21.44 acres in the East Campus area. Twenty percent of the planned site is dedicated to parking, while 59 percent will be green space—with part of that (6.5 percent) being existing wooded area. The trees south of the new building and a wooded area east of the project site are being set aside as conservation areas. These conservation areas are being established to make the project eligible for LEED (Leadership in Energy and Environmental Design) Green Building Rating System® certification at a silver level.

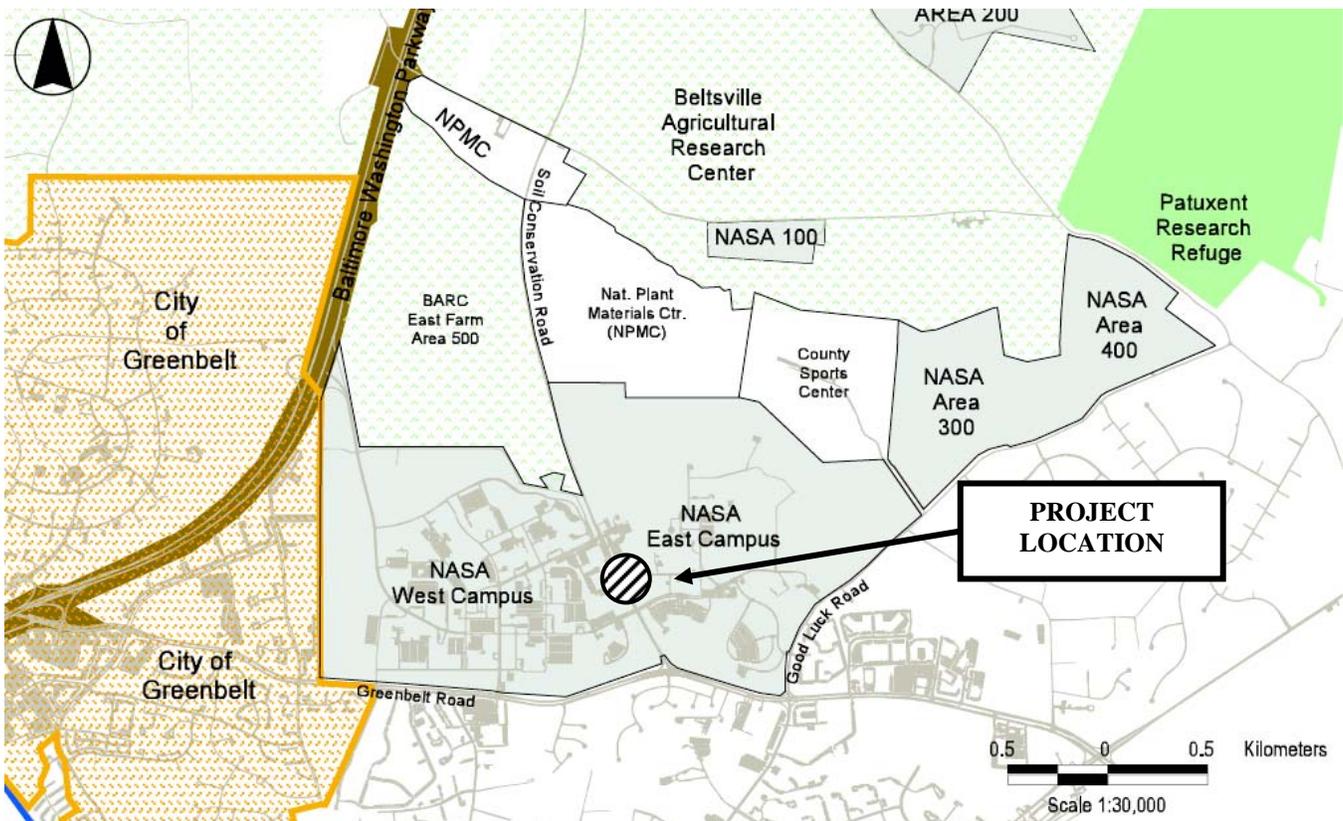
Background

NASA's proposed construction of the Exploration Sciences Building is intended to support the needs of the newly created Exploration Sciences Directorate at GSFC by bringing together staff, currently housed in older facilities across the GSFC campus, into new, state of the art, laboratory and office space. The proposed structure includes approximately 263,000 square feet of space. The building design reflects the two major functions of the program, with a clear visual and organizational expression of the laboratory and office components of the new structure's physical form.

In April 2003 the Commission approved the updated and revised GSFC master plan which featured the Exploration Sciences Building as one of the first major buildings on the campus to be developed in accordance with the master plan.



PROJECT REGIONAL LOCATION



PROJECT VICINTY INDICATING EXTENT OF GODDARD SPACE FLIGHT CENTER

The Commission approved master plan establishes consolidation of the interior of the campus and a new Space Science research neighborhood is to be developed, which will include a central commons area and teaming spaces for interdisciplinary work. A loop road to create a more pedestrian-friendly campus will surround the consolidated campus. Employee parking in the new research neighborhood will be reduced overall to effectively meet the Comprehensive Plan parking ratio of one space for every one-and-a-half employees (1:1.5) over the life of the master plan. GSFC has designated a portion of the master planned campus for public/private partnerships and a new program develop zone for additional GSFC employees should existing programs be expanded, or new space initiatives be created.

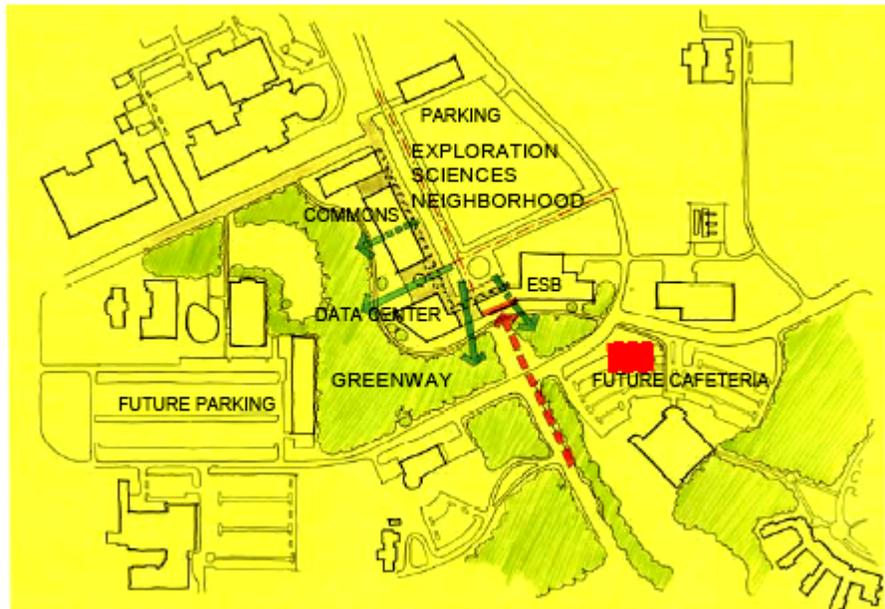
In approving the updated master plan, the Commission noted the following:

- Commended GSFC for effectively meeting the Comprehensive Plan parking goal of one space for every 1.5 employees, but encouraged GSFC to work to meet that goal within a shorter time frame if feasible. In the mean time, until the ratio can be met, each project will be evaluated within the context of meeting this overall parking goal in a staged approach.
- Strongly encouraged GSFC to immediately designate an Employee Transportation Coordinator to initiate the programs outlined in the TMP.

- Requested NASA, in the future provide, a more detailed plan for the Partnering and Outreach Zone of the master plan prior to beginning the property excessing process for the buildings in this zone. GSFC should consider mixed uses in this zone as well as office and research facilities to benefit the public and GSFC employees.

Proposal

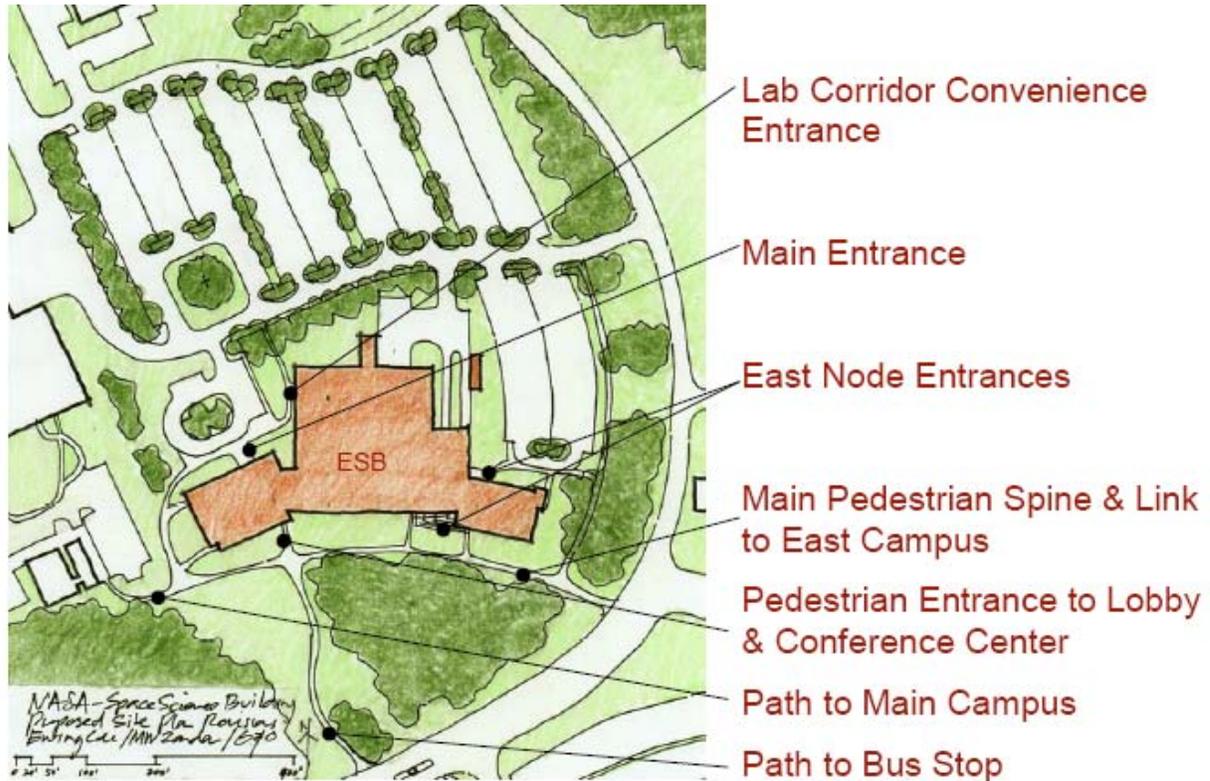
The design of the Exploration Sciences Building relates to the overall geometries of the existing campus plan. The main vehicular entrance is oriented toward the future Commons, Data Center, and other facilities envisioned in the master plan. This project also serves to bridge the barrier between the existing east and west campuses, by virtue of its location across the old Soil Conservation Road corridor. The facility is also situated strongly in relation to the pedestrian greenway of the campus that is to serve as a major open space element of the campus master plan. When seen from the south proposed new main entrance gate, the project will become a landmark for the campus.



**DETAIL OF MASTER PLAN CONCEPT FOR A
NEIGHBORHOOD RESEARCH AREA**

The 4-story office component is clad primarily in brick and creates south-facing, pedestrian-friendly edge along the proposed “greenway” space of the project site. The building’s laboratory block, clad primarily in metal panels, expresses the high-technology nature of its use. The planning of the lab floors provides a system of laboratory interstitial space for utility distribution and support that will maximize safety, efficiency, serviceability and flexibility. The Lab wing contains these principal functions:

- Chemical Laboratory functions, including a specialized lab with blast-resistant walls
- Electronics and Research Labs
- Clean Room Suite
- Vertical Beam Line Facility
- Additional office and open office space to directly support the lab functions.
- Support Block



MAJOR ACCESS FEATURES OF THE PROJECT BUILDING DESIGN

The parking lot for the proposed Earth Sciences Building has been developed with the long view in mind. It is located such that the four planned new buildings in the new research area of the master plan will all face this lot and will support most of the neighborhood with 624 parking spaces. The currently submitted building will house 750 people. With a build out of the neighborhood projected to total 1,235 employees when the four future facilities are built, an additional 201 spaces would then be added to the lot at that time to bring the parking from 0.87 (1/1.15) to the desired 0.70 ratio. Until that redevelopment occurs, the provided parking adheres to the stage one reduction in the master plan goal of 0.90 or less, with the final neighborhood area parking ratio of 1: 1.5 (0.70) when all buildings are present.

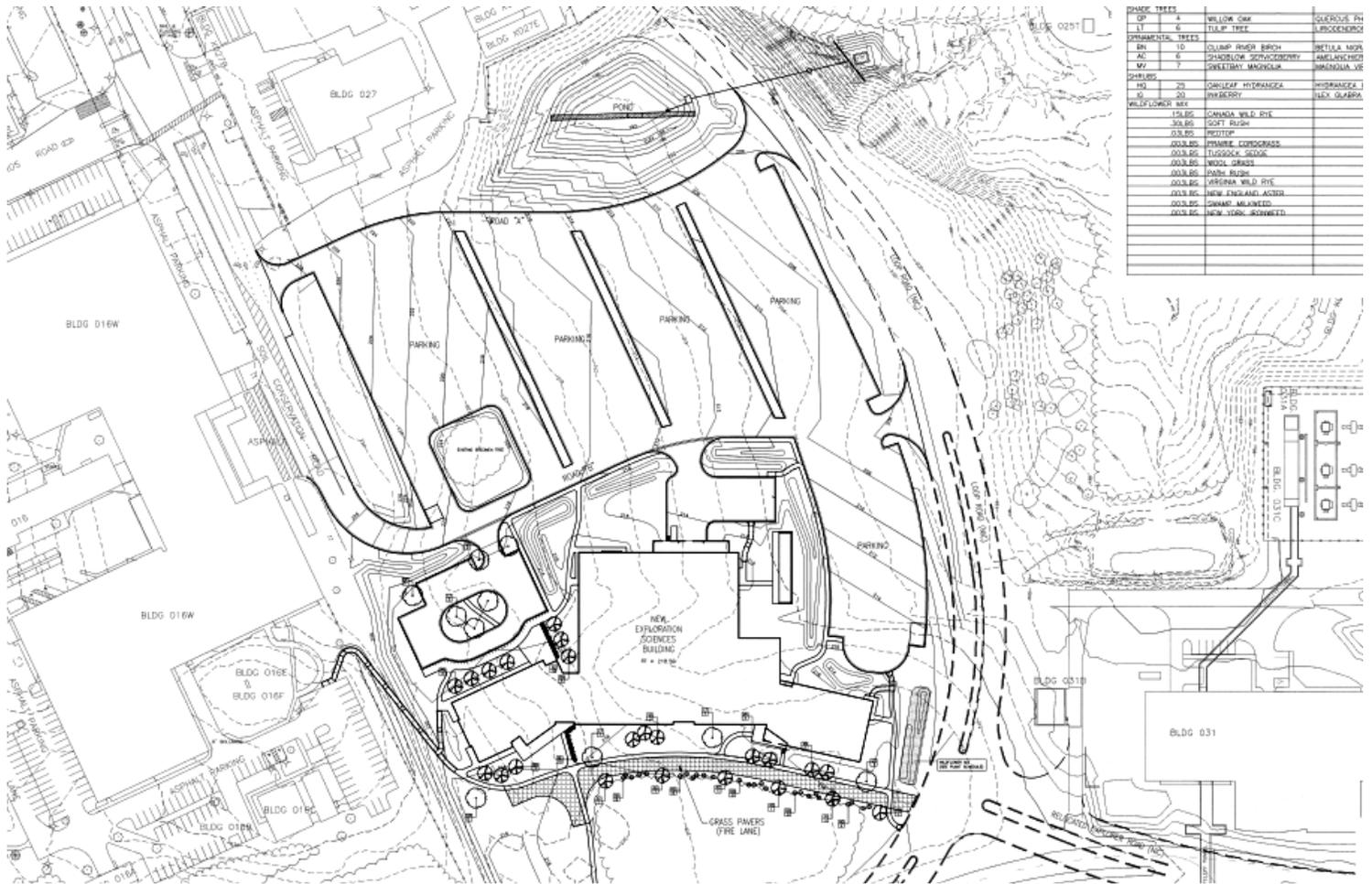
PROJECT ANALYSIS

Executive Summary

The staff recommends that **the preliminary and final site and building plans be approved.** Staff believes that the exterior building finish and assemblies have been developed and chosen to enhance the articulation of the building and express its functional massing. The use of these two primary building envelope systems (brick and metal clad panels) will express the identity and dual functions of the new structure while breaking down the visual scale of the facility overall.

The Exploration Sciences Building has shifted location from the initial “Space Sciences Building” identified in the master plan by slightly less than 150 feet. This southward shift in

location better accommodates the overall master plan phasing, and also addresses the need for this project to act as a unifying element in joining the area into a cohesive Exploration Sciences Neighborhood.



EXPLORATION SCIENCES BUILDING FINAL SITE PLAN

The initial development of the “greenway” pedestrian space adjacent to the Exploration Sciences Building on the south maintains the focus of the new campus as green space and is pedestrian accessible. Pedestrian access to the building from across the nearby campus is emphasized and given equal importance to the access from vehicles and parking.

Other features of this building will enhance the quality of work life for the employees. Specifically, a significant conferencing facility has been included in the design allowing for many, if not most of the meetings and conferences held by these employees to be located within their own facility, further reducing the number of vehicle trips required during the day. A small internal café has been located near this conferencing area that will also provide small meals for employees who work late and during over-night work shifts as they oversee their experiments and testing.

The design of the Exploration Sciences Building project has incorporated the goals of the master plan Transportation Management Plan in regards to its location on the campus and its parking lot size. The specific site for Exploration Sciences Building was chosen so that it is within 1,000 feet of a bus stop with two or more public bus lines and is connected via walking paths constructed from this bus stop to the building. These walks will be present throughout the campus neighborhood. In addition, 5 percent of the parking spaces close to the building are to be designated for carpool and hybrid vehicles as an incentive to reduce the number of high emission vehicles coming to the campus. These design initiatives encourage both the use of public transportation and carpooling by creating a walking campus neighborhood. Finally, the project design also includes indoor bike storage and showers for employee use to further encourage the reduced use of vehicles.



**GRAPHIC PORTRIAL OF EXPLORATION SCIENCES BUILDING
FINAL SITE PLAN**



EXPLORATION SCIENCES BUILDING FINAL SOUTH ELEVATION



EXPLORATION SCIENCES BUILDING FINAL NORTH ELEVATION

CONFORMANCE

Comprehensive Plan for the National Capital: Federal Elements

Staff has determined that the project would not have an effect on other federal facilities and is consistent with the Federal Elements of the Comprehensive Plan.

National Environmental Policy Act

An Environmental Assessment (EA) for the Exploration Science Building was completed in February 2004 by NASA. Based on the EA analysis and conclusions, a Finding of No Significant Impact (FONSI) for the project action was developed by NASA in May 2004.

The analysis considered both build and no action alternatives. The EA evaluated three alternative sites for the then projected 300,000 – 350,000 gross square feet of building space. All the alternative locations were within the Space Science Neighborhood shown in the Master Plan. The environmental effects of the proposed parking area and of vacating the six existing buildings that house the Space Science Program were also evaluated.

All the project site alternatives were determined to use the area of Landfill B (area just north of the final building location) for the project parking needs, and those requirements were ultimately reduced in the final site design.

NASA's FONSI determined the project location east and southeast of Building 16/16W was the most feasible development area for the proposed new science center and would have a reduced impact given the greater extent of excavation for facilities within the Landfill B area. Nevertheless, the extent of new construction and new building area was found to impact drainage areas, but only to a limited extent. The FONSI noted the project design would adhere to the Maryland soil erosion and water quality standards.

The stormwater management associated with a parking facility would need to take into consideration impacts to existing drainage channels, including the swale located along the northern portion of the landfill. During development of the required Maryland Department of Environment stormwater management plans, low impact development practices to reduce runoff quantity and improve its quality were evaluated and utilized where possible. Approval from MDE is needed prior to construction and involves multiple separate reviews which have been applied for (see attachment at page 13).

Staff has reviewed this proposal in accordance with the applicant's EA and with 40 U.S.C. § 8722(b)(1). Staff concurs that NASA's NEPA analysis demonstrates no significant environmental impacts from the final project design and implementation.



NORTH AERIAL VIEW OF EXPLORATION SCIENCES BUILDING

National Historic Preservation Act

The project development analysis has confirmed that the proposed project location does not show any known historic resources within the project area. This finding was confirmed by NASA's consultants in a review of the Maryland Department of Natural Resource (MDNR) Technology Toolbox database in 2003 and 2004.

Based on the current level of disturbance within the project area and its site exploratory engineering undertakings to date, no archeological resources have been recovered in the project site area in the past, nor is the likelihood of such discovery probable. A review of the Phase I Archeological Survey conducted for GSFC also confirms that the probability of finding archeological resources within the Exploration Sciences Building area is low. In a letter dated August 12, 2002 the Maryland Historic Trust agreed that: "...the activities described in the Master Plan and the EA, with the exception of the Soil Conservation Road Realignment, would have no effect to historic properties". (original letter from Elizabeth J. Cole to Mr. Kim Toufectis, master plan project manager)



**EXPLORATION SCIENCES BUILDING AS VIEWED FROM SOUTH
AT MAIN ENTRANCE ROAD NEAR MAIN GATE**

Development Program

Applicant: National Aeronautics and Space Administration

Estimated Cost: Project design cost is currently established at \$77,000,000.

Architect: Ewing Cole, Philadelphia, PA; Greenhorne & O'Mara Consulting Engineers

Completion Date: August 2009

CONSULTATION

NASA distributed the final EA on the project to various stakeholders of the region. These included: Beltsville Agricultural Research Center, US Department of Agriculture, U.S. Fish and Wildlife Service, US Department of the Interior, Maryland Department of the Environment, Maryland Department of Housing and Community Development, including the Maryland Historical Trust, and the Maryland Department of Natural Resources. Local agencies that were coordinated with included Cities of Bowie, Greenbelt, Laurel and New Carrollton, the Coordinating Council of Community Organizations (CCCO), the Maryland National Capital Park and Planning Commission—Prince George’s County, and the Washington Suburban Sanitary Commission.

NASA responses to comments received from various agencies about the project are shown in the following table:

REVIEWER	SECTION	PARA.	COMMENT	RESPONSE	
1	City of Greenbelt, MD Dept. Planning & Community Development			I have reviewed the EA for the proposed SSB at GSFC. The EA indicates that the construction of a new SSB on the GSFC campus will not have any direct impact on the City, so I have no specific concerns regarding the proposal.	Comment noted.
2	City of Greenbelt, MD Dept. Planning & Community Development			Of the alternatives presented however, I recommend Alternative Site Area 3, as it seems to have the least environmental impact on the campus, while still meeting the goals of the Master Facilities Plan. Since its creation, the City has endeavored to support development while providing good stewardship of the environment. I urge NASA to consider this in the site selection process.	Comment noted.
3	City of Greenbelt, MD Dept. Planning & Community Development			In that same vein, I would like to recommend that GSFC explore ways to reduce the impact of the proposed parking lot associated with the SSB. While the parking ratio is less than 1 space per employee, and therefore also meets the stated goals of the Master Facilities Plan; it is the lot that has the most impact on the environment of the proposal. The size of the parking spaces is not mentioned; perhaps more compact spaces could be added to the lot, thereby using less land to accommodate the same number of spaces.	Impacts in this EA are based upon the largest potential site area. Efforts would be made to use less area and to use low-impact development practices.
4	City of Greenbelt, MD Dept. Planning & Community Development	4.8.3	9	I would also like to request that if Alternative Site Area 2 is selected, that the City be informed of the chosen location for the hazardous waste storage/collection area that would be slated to be sited along Soil Conservation Road relocated.	If Alternative Site Area 2 is selected, separate NEPA documentation would be prepared for the selection of a new site for hazardous waste storage.
5	Jeff de La Beaujardiere, NASA GSFC			Though not clearly stated in the EA, all plans would seem to require the relocation of building 16 shipping/receiving activities to an area along the edge of campus. It is not clear in alternatives 1 & 2 whether building 16 would be conserved or destroyed.	Building 16/16W would be conserved in Alternatives 1 and 2.
6	Jeff de La Beaujardiere, NASA GSFC	Fig 2-4		Alternative site 3 is best because it reuses the area occupied by building 16/16w. The other sites require the destruction of additional forested area.	Comment noted.
7	MD DBED			This project is consistent with our plans, programs and objectives.	Comment noted.
8	MD DHCD, including the MD Historic Trust.			This project is consistent with our plans, programs and objectives.	Comment noted.
9	MD Department of Natural Resources			This project is consistent with our plans, programs and objectives.	Comment noted.
10	MD Department of Planning			This project is consistent with our plans, programs and objectives.	Comment noted.
11	MD DOT			This project is consistent with our plans, programs and objectives.	Comment noted.
12	MDE ARMA	3.3.2	4	The project should support resource conservation and pollution prevention through land use and transportation designs that provide alternatives to single occupant vehicle use.	The GSFC Master Plan was designed to reduce vehicle trips by locating related GSFC functions in close proximity to one another. This land use design based on functional proximity would allow better exchange between employees in their own neighborhood, and would allow more opportunities for carpooling, addressed in Section 3.3.2.

REVIEWER	SECTION	PARA.	COMMENT	RESPONSE	
13	MDE ARMA	3.10	3	If boilers or other equipment capable of producing emissions are installed as a result of this project, the applicant is requested to obtain a permit to construct from MDE's Air and Radiation Management Administration (ARMA) for this equipment, unless the applicant determines that a permit for this equipment is not required under State regulations pertaining to "Permits, Approvals, and Registration" (COMAR 26.11.02). A review for Toxic Air Pollutants (TAPs) should be performed. Please contact Dr. Justin Hsu, Ph.D., P.E., New Source Permits Division of ARMA at (410) 537-3230 to learn about the State's requirements and the permitting processes for such devices.	The use of boilers or other emissions generating equipment is not anticipated. No new or increased emissions of TAPs above current permit limits are anticipated. TAP limits are reviewed annually.
14	MDE ARMA	3.10 4.9	4 1	If a project receives federal funding, approvals and/or permits, and will be located in a non-attainment area or maintenance area for ozone or carbon monoxide, the applicant should determine whether emissions from the project will exceed the thresholds identified in the federal rule on general conformity. If the project emissions will be greater than 25 tons per year, contact James Wilkinson of ARMA at (410) 537-3245 for further information regarding threshold limits.	The project would not create any new emissions of ozone-causing pollutants. Comments addressed in Section 4.9.
15	MDE ARMA	3.7.3	4	The applicant is encouraged to plan for the maximum utilization of carpools and public transit by employees providing preferential carpool/vanpool parking and bus shelters for commuters that use these methods of transportation. This will minimize the adverse impact of additional traffic generated by the proposed project. Please contact the Mobile Sources Program of ARMA at (410) 537-3270 for additional information.	No new jobs or traffic would be created as a result of this proposal. GSFC is actively pursuing transportation initiatives to reduce the reliance on single occupancy vehicles.
16	MDE ARMA	4.9	1	Construction, renovation and/or demolition of buildings and roadways must be performed in conformance with State regulations pertaining to "Particulate Matter from Materials Handling and Construction" (COMAR 26.11.06.03D), requiring that during any construction and/or demolition work, reasonable precaution must be taken to prevent particulate matter, such as fugitive dust, from becoming airborne.	Project would comply with COMAR requirements related to air quality Comments addressed in Section 4.9.
17	MDE ARMA	4.9	2	The applicant should be advised that no cutback asphalt should be used during the months of June, July and August.	Project would comply with COMAR requirements related to air quality. Comment addressed in Section 4.9.
18	MDE ARMA	4.21.1	6	Fossil fuel fired power plants emit large quantities of sulfur oxide and nitrogen oxides, which cause acid rain. In addition, nitrogen oxide emissions contribute to the problem of global warming and also combine with volatile organic compounds to form smog. The MDE supports energy conservation, which reduces the demand for electricity and therefore, reduces overall emissions of harmful air pollutants. For these reasons, MDE recommends that the builders use energy efficient lighting, computers, insulation and any other energy efficient equipment. Contact the U.S. EPA at (202) 233-9120	GSFC would strive for a silver rating in the LEED Green Building Rating System, through the design of the SSB. The three alternatives would likely have similar ratings in these LEED categories: water efficiency, energy and atmosphere, indoor environmental quality, materials and resources and innovation and design processes.

Additionally, issues for the final project design included coordination for wetlands in and near the project area that were determined by NASA, and then field verified by the U.S. Army Corps of Engineers (USACE) in a Jurisdictional Determination on April 1, 2005. Intermittent and ephemeral streams totaling 1,224 lineal feet and 598 lineal feet, respectively, were identified. These streams are considered Waters of the U.S. and would be considered jurisdictional by the USACE. The area also contained a 0.03-acre palustrine emergent (PEM) wetland and a 0.02-acre isolated PEM. The isolated wetland is not subject to the USACE's jurisdiction. The two wetland areas, 353 LF of ephemeral stream, and approximately 250 LF of intermittent stream would be impacted by the project. No wetland mitigation is anticipated. A nontidal wetland and waterway permit will be obtained from the Maryland Department of the Environment.

CITED ATTACHMENT

GREENHORNE & O'MARA
CONSULTING ENGINEERS

January 24, 2006

Ms. Andi-Cunabaugh, Permit Processing
Maryland Department of the Environment
Water Management Administration
Regulatory Services Coordination Office
Montgomery Park Business Center, Suite 430
1800 Washington Boulevard
Baltimore, Maryland 21230-1708

Re: NASA, Goddard Space Flight Center
Joint Permit Application (JPA)
TRACKING NUMBER: 200562972

Dear Ms. Cunabaugh:

Enclosed please find five copies of the Joint Federal/State Permit Application for the NASA, Goddard Space Flight Center project. We are seeking a letter of authorization for permanent impact to a total of approximately 2,948 SF (503 LF) of ephemeral stream, 1,139 SF (53 LF) of intermittent stream, 2,696 SF (0.062 acres) of non-tidal emergent wetland (PEM), and to 12,547 SF (0.288 acres) of non-tidal wetland buffer, for the construction of the Exploration Sciences Building, associated parking, and a storm water management pond, dam and outfall structures.

A Jurisdictional Determination (JD) walk was completed on the area of detailed study for this project by the U.S. Army Corps of Engineers (USACE) on April 1, 2005. The JD Letter was issued on September 9, 2005 and is included in Section 8. Also included with this application is a copy of the JD request letter (Section 7), site vicinity map (Section 3), and USGS topographic map (Section 4).

Project Description

The purpose of the proposed project is to construct a new Exploration Sciences Center with an associated parking area and storm water management system in the project area at the NASA, Goddard Space Flight Center. Proposed impacts from the new building include 1,348 SF of non-tidal emergent wetland and 7,717 SF of non-tidal wetland buffer (Section 5, Sheet 1 of 3). Proposed impacts from the parking area include another 1,348 SF to non-tidal emergent wetland and 4,830 SF to buffer (Section 5, Sheet 2 of 3). The construction of a storm water management system will impact 2,948 SF (503 LF) of ephemeral stream and 1,139 SF (53 LF) of intermittent stream due to filling, grading, and channel stabilization activities associated with the placement of Class II rip rap on filter

Ms. Canabaugh
January 24, 2006
Page 2

fabric for outfall construction. This impact is shown on the enclosed on the 8.5 x 11 inch plan view impacts sheets (Section 5, Sheet 1 of 3). An Overall Wetland Delineation Map of the NASA project area has been included in Section 6.

Selected plan view drawings are enclosed in Section 6 of the joint application:

- C 101A and B – Existing Conditions Plan
- C 103A – D Sediment Control Plan Initial Stage
- C 108 A and B – Grading and Storm Drain Plan
- UC 103- Stormwater Management Plan

The current applicant and agent name for the NASA, Goddard Space Flight Center project is as follows:

Applicant

NASA, Goddard Space Flight Center
Code 224.1, Building 18
Room 140B
Greenbelt, MD 20771-001
Attn: Mark Daly
Tel: 301-286-4979

Agent

Greenhorne & O'Mara, Inc.
6110 Frost Place
Laurel, Maryland 20707
Attn.: Margaret Emslie
Tel: 301-982-2878

Please feel free to contact me at 301-982-2878 with any questions or requests that may assist in the issuance of authorization for this project.

Thank you for your time and consideration of this application.

Sincerely,

GREENHORNE & O'MARA, INC.



Margaret Emslie,
Senior Project Manager

Enclosures

cc: Mr. Mark Daly, NASA
Jim Wolters, Ewing Cole

**JOINT FEDERAL/STATE APPLICATION FOR THE ALTERATION OF ANY FLOODPLAIN,
WATERWAY, TIDAL OR NONTIDAL WETLAND IN MARYLAND**

FOR AGENCY USE ONLY

Application Number _____	Date Determined Complete _____
Date Received by State _____	Date(s) Returned _____
Date Received by Corps _____	_____
Type of State permit needed _____	Date of Field Review _____
Type of Corps permit needed _____	Agency Performed Field Review _____

- +++++
- Please submit 1 original and 4 copies of this form, required maps and plans to the Wetlands and Waterways Program as noted on the last page of this form.
 - Any application which is not completed in full or is accompanied by poor quality drawings may be considered incomplete and result in a time delay to the applicant.
- Please check one of the following:

RESUBMITTAL: _____ APPLICATION AMENDMENT: _____ MODIFICATION TO AN EXISTING PERMIT: _____
 JURISDICTIONAL DETERMINATION ONLY _____ APPLYING FOR AUTHORIZATION X
 PREVIOUSLY ASSIGNED NUMBER (RESUBMITTALS AND AMENDMENTS) _____
 DATE January 19, 2006

1. APPLICANT INFORMATION:

APPLICANT NAME:

A. Name: Mr. Mark Dalry B. Daytime Telephone: (301) 286-3918
 C. Company: NASA, Goddard Space Flight Center
 D. Address: Code 224.1, Building 18, Room 140B
 E. City: Greenbelt State: MD Zip: 20771-001

AGENT/ENGINEER INFORMATION:

A. Name: Dennis Plouff B. Telephone: (201) 982-2800
 C. Company: Greenhorne & O'Mara, Inc.
 D. Address: 6110 Frost Place
 E. City: Laurel State: MD Zip: 20707

ENVIRONMENTAL CONSULTANT:

A. Name: Margaret Emslie B. Telephone: (201) 982-2800
 C. Company: Greenhorne & O'Mara, Inc.
 D. Address: 6110 Frost Place
 E. City: Laurel State: MD Zip: 20707

CONTRACTOR (If known):

A. Name: _____ B. Telephone: _____
 C. Company: _____
 D. Address: _____
 E. City: _____ State: _____ Zip: _____

PRINCIPAL CONTACT:

A. Name: Margaret Emslie B. Telephone: (201) 982-2878
 C. Company: Greenhorne & O'Mara, Inc.
 D. Address: 6110 Frost Place
 E. City: Laurel State: MD Zip: 20707

2. PROJECT DESCRIPTION

a. GIVE WRITTEN DESCRIPTION OF PROJECT:

The project would result in a permanent impact 2,948 SF (503 LF) of ephemeral stream and 1,139 SF (53 LF) of intermittent stream due to filling and grading for the construction of a storm water management pond. The project would result in a permanent impact from filling and grading to a total of 2,696 SF (0.062 acres) of non-tidal, emergent wetland (PEM), and to 12,547 SF (0.288 acres) of non-tidal wetland buffer, for the construction of the "Exploration Sciences Building and the adjacent parking lot."

Has any portion of the project been completed? Yes No If yes, explain _____

b. **ACTIVITY:** Check all activities that are proposed in the wetland, waterway, floodplain, and nontidal wetland buffer as appropriate.

- A. filling
- B. dredging
- C. excavating
- D. flooding or impounding water
- E. draining
- F. grading
- G. removing or destroying vegetation
- H. building structures

Area for item(s) checked: Wetland 2,696 (sq. ft.) Buffer (Nontidal Wetland Only) 12,547 (sq. ft.)

Expanded Buffer (Nontidal Wetland Only) _____ (sq. ft.)

Length of stream affected 556 (linear feet)

c. **TYPE OF PROJECTS:** Project Dimensions

For each activity, give overall length and width (in feet), in columns 1 and 2. For multiple activities, give total area of disturbance in square feet in column 3. For activities in tidal waters, give maximum distance channelward (in feet) in column 4. For dam or small ponds, give average depth (in feet) for the completed project in column 5. Give the volume of fill or dredged material in column 6.

	Length (Ft.) 1	Width (Ft.) 2	Area Sq. Ft. 3	Maximum/Average Channelward Encroachment 4	Pond Depth 5	Volume of fill/dredge material (cubic yards) below MHW or OHW 6
A. <input type="checkbox"/> Bulkhead*						
B. <input type="checkbox"/> Revetment*						
C. <input type="checkbox"/> Vegetative Stabilization						
D. <input type="checkbox"/> Gabions						
E. <input type="checkbox"/> Groins						
F. <input type="checkbox"/> Jetties						
G. <input type="checkbox"/> Boat Ramp						
H. <input type="checkbox"/> Pier*						
I. <input type="checkbox"/> Breakwater						
J. <input type="checkbox"/> Repair & Maintenance						
K. <input type="checkbox"/> Road Crossing						
L. <input type="checkbox"/> Utility Line	<u>13</u>	<u>38</u>	<u>496</u>			
M. <input type="checkbox"/> Outfall Construction	<u>53</u>		<u>1147</u>			
N. <input type="checkbox"/> Small Pond	<u>192</u>		<u>980</u>			
O. <input type="checkbox"/> Dam	<u>311</u>		<u>1,960</u>			
P. <input type="checkbox"/> Lot Fill	<u>56</u>	<u>46</u>	<u>2595</u>			
Q. <input type="checkbox"/> Building Structures	<u>98</u>	<u>66</u>	<u>6470</u>			
R. <input type="checkbox"/> Culvert						
S. <input type="checkbox"/> Bridge						
T. <input type="checkbox"/> Stream Channelization						
U. <input type="checkbox"/> Parking Area	<u>87</u>	<u>65</u>	<u>5682</u>			
V. <input type="checkbox"/> Dredging*						
Total Area Disturbance			19,330 SF			
W. <input type="checkbox"/> 1. <input type="checkbox"/> New						
<input type="checkbox"/> 2. <input type="checkbox"/> Maintenance						
<input type="checkbox"/> 3. <input type="checkbox"/> Hydraulic						
<input type="checkbox"/> 4. <input type="checkbox"/> Mechanical						
<input type="checkbox"/> Other (explain) _____						

***** For projects indicated with an asterisk refer to the sample plans and checklists found in the January 1988 Joint Application booklet.

F. Explanation The project is designed to minimize impact to the surrounding stream area. Other alternatives were considered.

Describe reasons why impacts were not avoided or reduced in Q. Also check Items G-P that apply to your project.

- | | | |
|---|---|---|
| G. <input type="checkbox"/> Cost | K. <input type="checkbox"/> Parcel size | N. <input type="checkbox"/> Safety/public welfare issue |
| H. <input type="checkbox"/> Extensive wetlands on site | L. <input type="checkbox"/> Other regulatory requirement | O. <input type="checkbox"/> Inadequate zoning |
| I. <input checked="" type="checkbox"/> Engineering/design constraints | M. <input type="checkbox"/> Failure to accomplish project purpose | P. <input type="checkbox"/> Other _____ |
| J. <input type="checkbox"/> Other natural features | | |

Q. Description The stream runs along the edge of an open landfill area. Avoiding impacts to the stream would have required destruction of a significant area of woodland.

5. LETTER OF EXEMPTION: If you are applying for a letter of exemption for activities in nontidal wetlands and/or their buffers, explain why the project qualifies:

- | | |
|---|--|
| A. <input type="checkbox"/> No significant plant or wildlife value and wetland impact | B. <input type="checkbox"/> Repair existing structure/fill |
| 1. <input type="checkbox"/> Less than 5,000 square feet | C. <input type="checkbox"/> Mitigation Project |
| 2. <input type="checkbox"/> In an isolated nontidal wetland less than 1 acre in size | D. <input type="checkbox"/> Utility Line |
| E. Other (explain) _____ | 1. <input type="checkbox"/> Overhead |
| | 2. <input type="checkbox"/> Underground |

F. Check here if you are not applying for a letter of exemption.

IF YOU ARE APPLYING FOR A LETTER OF EXEMPTION, PROCEED TO BLOCK 11

6. ALTERNATIVE SITE ANALYSIS: Explain why other sites that were considered for this project were rejected in M. Also check any items in D-L if they apply to your project. (If you are applying for a letter of exemption, do not complete this block):

- | | | |
|---|---|---|
| A. <input type="checkbox"/> 1 site | B. <input type="checkbox"/> 2 - 4 sites | C. <input type="checkbox"/> 5 or more sites |
| Alternative sites were rejected/not considered for the following reason(s): | | |
| D. <input type="checkbox"/> Cost | H. <input type="checkbox"/> Greater wetlands impact | L. <input type="checkbox"/> Other _____ |
| E. <input type="checkbox"/> Lack of availability | I. <input type="checkbox"/> Water dependency | |
| F. <input checked="" type="checkbox"/> Failure to meet project purpose | J. <input type="checkbox"/> Inadequate zoning | |
| G. <input type="checkbox"/> Located outside general/market area | K. <input checked="" type="checkbox"/> Engineering/design constraints | |

M. Explanation: The project was designed to reduce storm-flow velocities into the stream channel to prevent erosion. To accomplish this goal, complete avoidance was not possible.

7. PUBLIC NEED: Describe the public need or benefits that the project will provide in F. Also check Items in A-E that apply to your project. (If you are applying for a letter of exemption, do not complete this block):

- | | | |
|---|--|---|
| A. <input checked="" type="checkbox"/> Economic | C. <input checked="" type="checkbox"/> Health/welfare | E. <input type="checkbox"/> Other _____ |
| B. <input type="checkbox"/> Safety | D. <input type="checkbox"/> Does not provide public benefits | |
| F. Description _____ | | |

8. OTHER APPROVALS NEEDED/GRANTED:

A. Agency	B. Date Sought Will be submitted	C. Decision		D. Decision Date	E. Other Status
		1. Granted	2. Denied		
Sediment & Erosion Control Plan Approval (MDE), WMA; , SWM Review	on 1/27/06				
	To be submitted				
NPDES NOI	during S&E review				

9. MITIGATION PLAN: Please provide the following information:

- a. Description of a monetary compensation proposal, if applicable (forstate requirements only). Attach another sheet if necessary. Not applicable
- b. Give a brief description of the proposed mitigation project. N/A
- c. Describe why you selected your proposed mitigation site, including what other areas were considered and why they were rejected. N/A
- d. Describe how the mitigation site will be protected in the future. N/A