



Executive Director's Recommendation

Commission Meeting: April 4, 2013

PROJECT
New Consolidated Elementary School
Marine Corp Base Quantico
Quantico, Virginia

NCPC FILE NUMBER
7462

NCPC MAP FILE NUMBER
2402.10(38.40)43720

SUBMITTED BY
Department of the Navy

APPLICANT'S REQUEST
Preliminary and final approval of site and building plans

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

PROPOSED ACTION
Approve with comments

ACTION ITEM TYPE
Consent Calendar

PROJECT SUMMARY

The United States Department of the Navy proposes to construct a new consolidated elementary school building on the site of an existing athletic field, adjacent to Quantico Middle/High School. The new building will have approximately 130,000 square feet of interior space, with one full ground level and one "half" upper level along the front-side of the building, designed to accommodate 750 students (Kindergarten through 5th grade) and 90 employees. The project will construct one surface lot with 144 spaces (including 6 handicapped spaces) for general use; an access drive along the front-side of the building for private vehicles; a loop road for school buses; two service dock areas; storm water management facilities; a fire lane access road; and two playground areas. The new building is designed to comply with existing AF/FP requirements, installation design guidelines, and attain a LEED Silver rating, utilizing solar-heated water, natural gas, and a rainwater harvesting system.

KEY INFORMATION

- The project is situated on a previously developed site in a central location on the Marine Corps Base Quantico installation.
 - The project will consolidate three existing elementary schools into a single new facility using a number of "green" features including: geothermal, solar, wind, and rainwater harvesting systems.
 - The project will result in a net decrease in employment and parking on the installation.
-

RECOMMENDATION

The Commission:

Approves the preliminary and final site development and building plans for a new consolidated elementary school, located at Marine Corps Base Quantico in Quantico, Virginia as shown on NCPC Map File No. 2402.10(38.40)43720, pursuant to 40 U.S.C. §8722(b)(1).

Commends Marine Corps Base Quantico for incorporating “green” features into the project such as a solar array, rainwater harvesting system, geo-thermal heating and cooling system, and a rooftop wind turbine system.

Notes that the Navy has indicated that a revised draft Marine Corps Base Quantico Masterplan and Transportation Management Plan is tentatively scheduled for submission to NCPC in the Fall, 2013.

PROJECT REVIEW TIMELINE

Previous actions	None.
Remaining actions <i>(anticipated)</i>	<i>None.</i>

*Prepared by M. Weil
March 28, 2013*

I. PROJECT DESCRIPTION

Site

Marine Corp Base Quantico (MCBQ) is located approximately 30 miles south of Washington, DC, and is the primary base for the U.S. Marine Corps in the Metropolitan Washington Region. The installation is approximately 87 square miles in area and bifurcated by Interstate Route 95 (I-95), occupying portions of three Virginia counties: Prince William, Stafford, and Fauquier. MCBQ to the west of I-95 is known as “Westside” and the area to the east of I-95 is known as “Mainside.” Figure 1 shows the location of the proposed project within MCBQ Mainside, as well as some surrounding context. As shown in the figure, the site is located adjacent to the Quantico Middle School/High School and nearby Russell Elementary School, a child development center, and multiple residential neighborhoods, away from the more commercial areas of the installation.

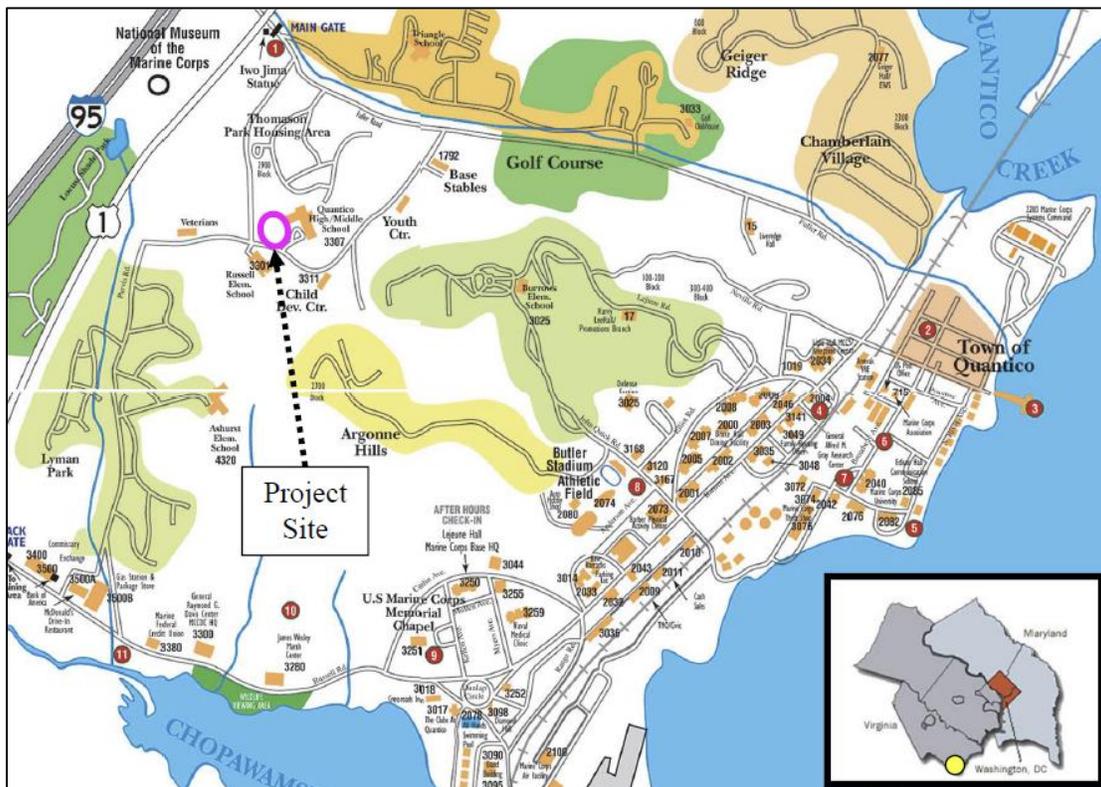


Figure 1: Project location

Background

There are three existing elementary schools at MCBQ (Russell Elementary School, Ashurst Elementary School, and Burrows Elementary School) that are in need of renovation or reconstruction, and MCBQ decided to consolidate the schools into one single new school

building, rather than improve each of the individual buildings. The following graphic shows the location of the three existing elementary school buildings.

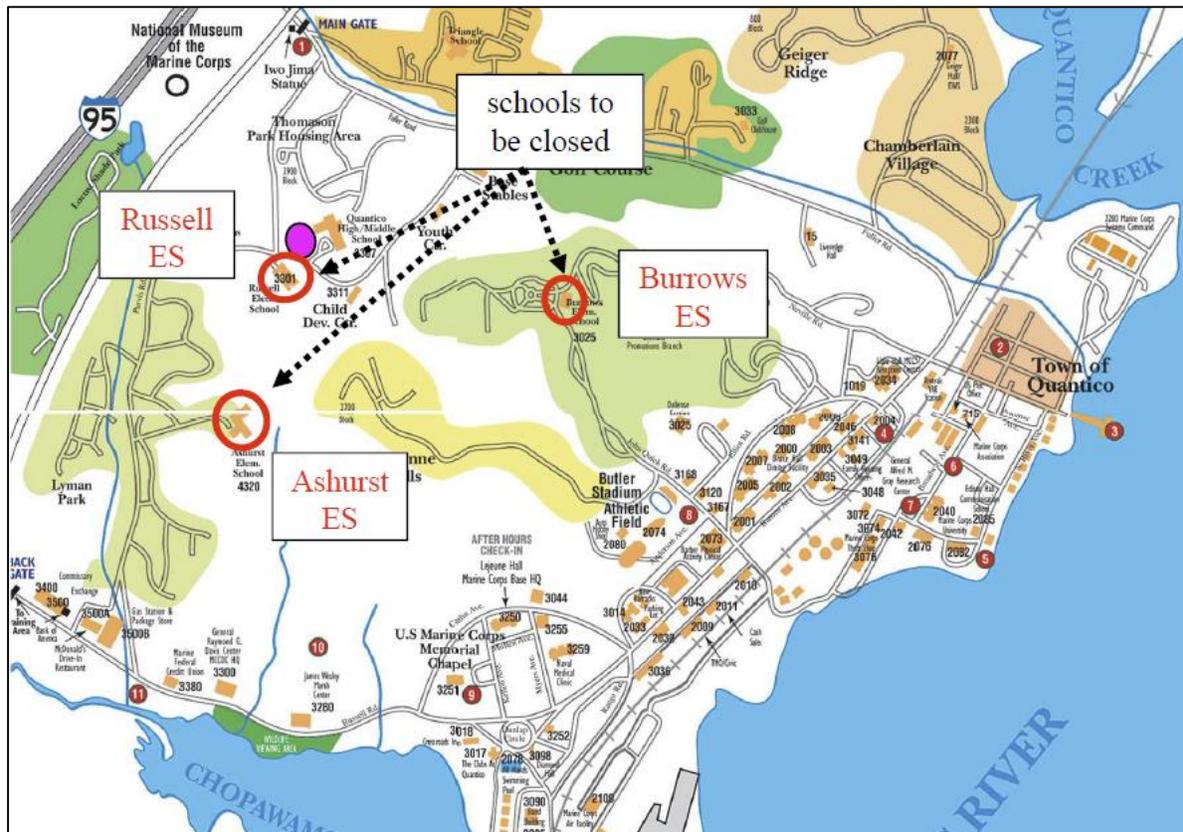


Figure 2: Existing elementary schools

The submission indicates that Russell Elementary School will be demolished and re-used to construct a new school building for Quantico Middle/High School at some future date; Burrows Elementary School will be re-purposed as administrative space; and Ashurst Elementary School will be used as administrative space, demolished, or used as swing space for the middle/high school.

Proposal

The project will construct a new 130,000 square foot consolidated elementary school building, designed to accommodate up to 750 students (Kindergarten through 5th grade) and 90 education-related personnel. The new building will consist of one full ground level and one “half” upper level along the front-side (southern side) of the building as shown in the following figure.



Figure 3: Proposed new school building rendering – front-side

As shown in the following ground level floor plan, the new building will include space for administrative functions (dark yellow) in the front/entry area; learning/classroom space (light blue) along the front-side and rear of the building; a library (purple); two partially surrounded spaces for outdoor classrooms/play space (dark green and brown); a kitchen area (red); art learning spaces (light green); gymnasiums (orange); circulation space/hallways (light yellow); and mechanical areas (gray). The new building will include a relatively large “commons” area toward the rear of the building (shown in the light yellow shaded square area), adjacent to the art rooms, kitchen, and gymnasiums, intended for use as an “All Purpose” room.



Figure 4: Ground level floor plan

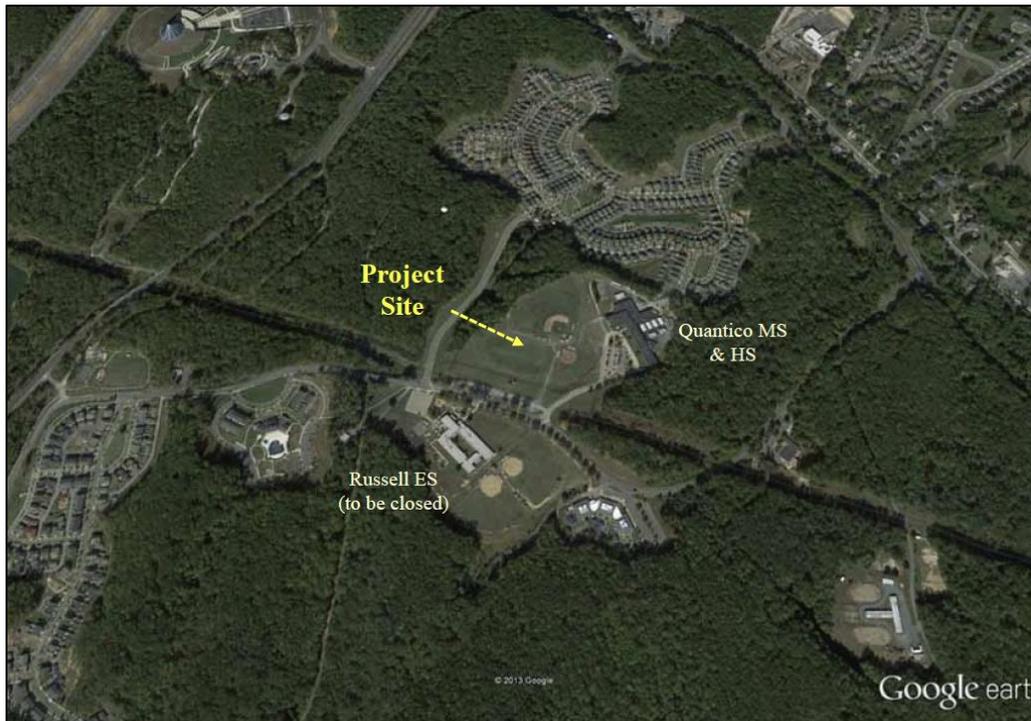


Figure 6: Existing project site

The site plan (Figure 7) shows a surface parking lot with 144 general spaces (including six handicapped spaces), to be located along the front side of the new building and used on a “first come, first serve” basis. A private vehicle access road will be situated between the parking lot and building entrance area, used for drop-off/pick-up activity, and a loop road (located near the southwest corner of the building) is intended for use by school buses. Service/delivery areas will be located on the north/northwest sides of the building, accessed using the bus loop road, and playground areas will be situated along the building’s northeast and east sides as shown. Lastly, a fire/emergency access roadway will be constructed along three sides (west, south, east) of the new building to provide fire/rescue vehicle access in compliance with Department of Defense building codes.

The project is designed with several noteworthy “green” features including:

- Rainwater harvesting system/underground storage tank for “gray-water” use in the operation of water closets, restroom facilities, and landscape watering;
- Roof-mounted solar collector arrays for water-heating purposes;
- 1.5 KW rooftop wind turbine system for both power and educational purposes;
- Hybrid geothermal building HVAC system;
- External lighting designed to meet “dark sky” requirements.

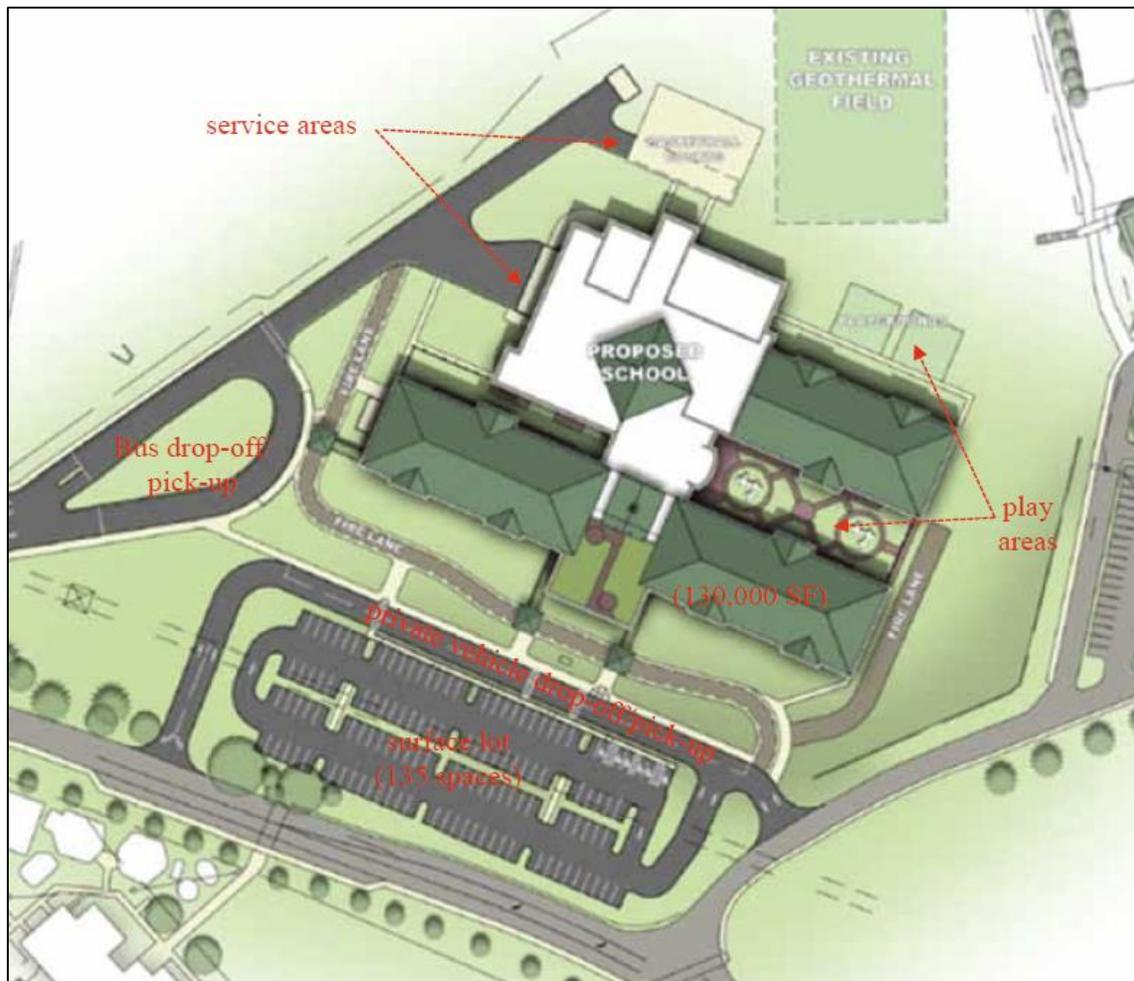


Figure 7: Proposed site plan

II. PROJECT ANALYSIS/CONFORMANCE

Analysis

The project will consolidate the MCBQ's three older elementary schools into a new, single, state-of-the art building for a more efficient use of military resources. Overall, the consolidation project will reduce the number of staff at MCBQ (by 33 people); reduce the number of parking spaces at the installation (by 105 spaces); and increase the number of trees at MCBQ (by 120). The project is also generally consistent with the existing 2002 MCBQ installation masterplan. Therefore, NCPC staff recommends that the Commission **approve the preliminary and final site development and building plans for a new consolidated elementary school, located at Marine Corps Base Quantico in Quantico, Virginia.** In addition, NCPC staff recommends that the Commission **commend Marine Corps Base Quantico for incorporating "green" features into the project such as a solar array, rainwater harvesting system, geo-thermal heating**

and cooling system, and a rooftop wind turbine system. Lastly, staff understands that the Navy has tentative plans to submit a draft Masterplan/TMP to NCPC for review in Fall, 2013. Therefore, NCPC staff recommends that the Commission **note that the Navy has indicated that a revised draft Marine Corps Base Quantico Masterplan and Transportation Management Plan is tentatively scheduled for submission to NCPC in the Fall, 2013.**

Comprehensive Plan for the National Capital

The Comprehensive Plan for the National Capital provides goals and policies that guide the Commission in evaluating and acting on plans and projects in the National Capital Region. Staff has determined that the proposed project is generally consistent with the Comprehensive Plan and in particular, consistent with the following policies from the Federal Workplace, Transportation, and Federal Environment Elements.

1. Use innovative energy conserving techniques in the design and construction, operation, location, and orientation of federal workplaces.
2. Implement methods to reduce consumption of non-renewable energy resources and to reduce the consumption of energy through energy efficient techniques as soon as practicable at all federal workplaces or when planning these facilities.
3. Minimize development of open space by selecting disturbed land or brownfields for new federal workplaces or by reusing existing buildings or sites.
4. Provide parking for disabled persons in accordance with federal law.
5. Minimizing power generation requirements, such as by utilizing best available “green” building systems and technologies.
6. Utilizing non-polluting sources of energy (e.g., solar energy).
7. Encouraging the development and use of alternative energy sources to reduce the reliance on fossil fuels.
8. Indoor air quality should be promoted by using environmentally friendly (“green”) building materials, construction methods, and building designs.
9. Minimize tree cutting and other vegetation removal to reduce soil disturbance and erosion, particularly in the vicinity of waterways. When tree removal is necessary, trees should be replaced to prevent a net tree loss. Trees should be replaced to prevent a net tree loss.

Relevant Federal Facility Master Plan

The land use designation for the project site in the 2002 MCBQ Masterplan (the current master plan) is “Community”, and the project is consistent with the designation. The Community use is

defined as “land use that encourages a mix of uses. Facilities allowed include religious, family support, personnel services, professional services, medical, community, housing, commercial and recreational services. Users live both on- and off-post and may include soldiers, dependents, retirees, and other civilian personnel.” The project site is located directly adjacent to an existing school (Quantico Middle/High School), and directly across the street from an existing elementary school (Russell Elementary School) and future site of the new Quantico Middle/High School. An update to the masterplan/TMP is currently under development by MCBQ and the Navy.

National Environmental Policy Act (NEPA)

MCBQ studied the school project's impact to the natural environment through an Environmental Assessment (EA). The MCBQ Commander issued a Finding of No Significant Impact (FONSI) on April 25, 2012 to complete their NEPA review responsibility for the project. For federal projects in the environs, NCPC does not have independent NEPA responsibility.

National Historic Preservation Act (NHPA)

Regarding Section 106 of the NHPA, NAVFAC submitted a Programmatic Agreement (PA) between the U.S. Marines, Advisory Council on Historic Preservation, and the Virginia State Historic Preservation Officer that the project does not require review under the Agreement since the site has been previously disturbed and determined to be “culturally sterile”. Therefore, Section 106 is complete for the project. For federal projects in the environs, NCPC does not have independent Section 106 responsibility.

III. CONSULTATION

Coordination with local agencies

In accordance with the Commission's Procedures for Intergovernmental Cooperation in Federal Planning in the National Capital Region, project plans were referred by NCPC to the Virginia Department of Transportation (VDOT), Virginia Department of Environmental Quality (DEQ), Northern Virginia Transportation Commission, Northern Virginia Regional Commission (NVRC), Prince William County Office of Planning, and Prince William County Department of Transportation.

Comments were received from VDOT and Prince William County Department of Transportation stating no comment since the project will not have any significant impact to facilities under their jurisdiction. The NVRC issued a letter stating that Prince William County has enacted a jurisdiction-wide Chesapeake Bay Resource Management Area (RMA) designation, which requires that all development complies with the local jurisdiction's stormwater quality ordinance in addition to Virginia stormwater requirements. Also, NVRC's comments state that stormwater Best Management Practices (BMPs) should be utilized and any development of 2,500 square feet or more must comply with erosion and sediment control requirements for Prince William County

and Virginia. The project submission indicates that school construction will comply with mandatory Virginia stormwater management requirements and that no construction will occur within any designated Resource Management Areas or Resource Protection Areas.