



Executive Director's Recommendation

Commission Meeting: September 7, 2017

PROJECT Parking Lot Canopy-Mounted Photovoltaic Panels Installation at Sites 26, 34, 37 and 57 Joint Base Anacostia - Bolling Southwest, Washington, DC	NCPC FILE NUMBER 7901
SUBMITTED BY United States Department of Defense Department of the Navy	NCPC MAP FILE NUMBER 84.21(38.00)44591
REVIEW AUTHORITY Review of Projects on the Bolling-Anacostia Complex per Public Law 93-166, Section 610(a)	APPLICANT'S REQUEST Approval of comments on preliminary and final site and building plans
	PROPOSED ACTION Approve comments on preliminary and final site and building plans
	ACTION ITEM TYPE Consent Calendar

PROJECT SUMMARY

The Department of the Navy has submitted a project to construct ground photovoltaic (PV) arrays on four sites at Joint Base Anacostia. Site 26 consists of 3,600 panels located on 3.90 acres of a paved surface parking lot; Site 34 consists of 5,000 panels on 6.1 acres of disturbed land; Site 37 consists of 1,470 panels located on 0.98 acres of a paved surface parking lot; and Site 57 consists of 5,950 panels on 6.4 acres of a paved surface parking lot. Staff notes that the Commission already approved the 5,000 panels on Site 34 on January 5, 2017 (project #7627) as part of another proposal and it has not changed with this submission.

All panels will generate renewable energy for the installation and will have an anti-reflective coating. The PV arrays installed over the paved surface parking lots on sites 26, 37, and 57 will be 15 feet tall. The ground-mounted PV arrays located on Site 34 will be eight feet tall.

KEY INFORMATION

- In an effort to reduce its use and reliance upon fossil fuels and reduce greenhouse gas emissions (GHG), the Secretary of the Navy has created an initiative with a goal to achieve 1 Gigawatt (GW) of renewable energy generation capacity by 2020 either on or near Navy installations.
- The Navy has entered into a long-term (26-year) lease agreement with a commercial PV developer to construct and operate a PV system that would generate renewable energy to supply the existing installation electrical energy grid. The Contractor will develop, construct, operate, maintain, own, and finance the PV arrays and associated equipment.

- The project will supply approximately 10% of Joint Base Anacostia-Bolling's electrical requirements.
- During the Commission meeting on January 5, 2017, the Commission commented favorably on the preliminary and final site and building plans for three new ground photovoltaic PV arrays on Sites 1, 4, and 34 at Joint Base Anacostia-Bolling.

RECOMMENDATION

The Commission:

Comments favorably on the preliminary and final site and building plans for three new photovoltaic arrays installed over paved surface parking lots at sites 26, 37, and 57, and one new ground-mounted array on site 34 at Joint Base Anacostia-Bolling, located in Southeast Washington, DC.

Commends the Department of the Navy's initiative to reduce fossil fuel-generated energy consumption, provide renewable energy, and optimize the use of impervious parking surfaces.

PROJECT REVIEW TIMELINE

Previous actions	January 5th, 2017 – Preliminary and Final Approval of Photovoltaic Arrays at Sites 1, 4, and 34.
Remaining actions (anticipated)	None.

PROJECT ANALYSIS

Executive Summary

Staff evaluated the project by reviewing its consistency with the 2014 Joint Base Anacostia Bolling (JBAB) Master Plan, installation design guidelines, and relevant policies within the Comprehensive Plan for the National Capital. In particular, this project is generally consistent with regional federal policies relating to site development and sustainable energy production. The project is included in the Master Plan (approved by the Commission in September 2014) and adheres to design guidelines related to fencing and vegetation. Therefore, staff recommends that the Commission comment favorably on the preliminary and final site and building plans for three new ground photovoltaic PV arrays on Sites 26, 37, and 57, and Site 34, which was previously submitted to the Commission on January 5th, 2017, at Joint Base Anacostia-Bolling, located in Southeast Washington, D.C.

Analysis

NCPC staff reviewed each of the four installation sites within the context of the following topic areas: views, floodplains, and existing/future land use. As shown on slide 11, the applicant assessed views from Indigo Landing in Virginia, East Potomac Park, Buzzard Point, the Frederick Douglass Memorial Bridge, and from Malcom X Drive. Staff's analysis of each site follows:

Site 26

The site is located along the south side of the intersection of Mitscher Road and Thomas Road SW. Site 26 proposes to install 3,600 panels over 3.9 acres of impervious surface parking lot. The installation, which consists of 15 foot tall structures, functioning as carports, will not be visible from the viewpoints listed above because the site is surrounded by development to the north, south, east and west.

The project is located in the FEMA 500-year floodzone and will result in negligible impacts to the existing floodplain since the array foundations, each with a small footprint, will minimally affect the floodplains ability to hold and absorb floodwater. The PV provider will be responsible for equipment or loss of energy due to flooding damage.

The site is on land designated for industrial use in the JBAB Master Plan. The Navy has determined the installation will not adversely affect JBAB's total land identified for industrial use. The Master Plan shows Site 26 as a potential paved surface parking lot array site (Slide 5). NCPC staff supports the use of Site 26 for a surface parking array since the new use will help the Navy meet its future sustainable energy production goals, achieve cost savings for the federal government, and contribute to installation security. The installation will not affect the existing parking ratio.

Site 34

Site 34 was previously submitted to the Commission on January 5th, 2017. This submittal proposes no amendments to the previous submittal. The Commission commented favorably on the preliminary and final site and building plans.

Site 37

The site is bounded by Brookley Avenue SW to the east, and Cudahay Street SW to the west. Site 37 proposes to install 1,470 panels over .98 acres of impervious surface parking lot. Similar to site 26, the installation, which consists of 15 foot tall structures, functioning as carports, will not be visible from the viewpoints listed above because the site is surrounded by development to the north, south, and west. The I-295 Freeway borders the site to the east.

The project is located in the FEMA 500-year floodzone and will result in negligible impacts to the existing floodplain since the array foundations, each with a small footprint, will minimally affect

the floodplains ability to hold and absorb floodwater. The PV provider will be responsible for equipment or loss of energy due to flooding damage.

The site is on land designated for industrial use in the JBAB Master Plan. The Navy has determined the installation will not adversely affect JBAB's total land identified for industrial use. The Master Plan shows Site 37 as a potential surface parking lot array site (Slide 9). NCPC staff believes that use of Site 37 for a surface parking array is acceptable since the new use will help the Navy meet its future sustainable energy production goals, achieve cost savings for the federal government, and contribute to installation security. The installation will not affect the existing parking ratio.

Site 57

The site is bounded by Chappie James Boulevard to the east, and residential units along Langley Way SW to the west. Site 57 proposes to install 5,950 panels over 6.4 acres of impervious surface parking lot. The installation, which consists of 15 foot tall structures, functioning as carports, will not be visible from the viewpoints listed above because the site is surrounded by development to the north, south, east and west. The project is not located in the 100 or 500 year floodplain.

The site is on land designated for mixed use (flexible use) in the JBAB Master Plan. The Navy has determined the installation will not adversely affect JBAB's total land identified for mixed use. The Master Plan shows Site 57 as a potential surface parking lot array site (Slide 10). Similar to the other two sites, NCPC supports the use of Site 57 for a surface parking array is acceptable since the new use will help the Navy meet its future sustainable energy production goals, optimize the use of the existing surface parking, achieve cost savings for the federal government, and contribute to installation security. The installation will not affect the existing parking ratio.

CONFORMANCE TO EXISTING PLANS, POLICIES AND RELATED GUIDANCE

Comprehensive Plan for the National Capital

As noted above, this project meets basic goals of the Comprehensive Plan.

National Historic Preservation Act

The District of Columbia State Historic Preservation Office (SHPO) concurred with the Navy's determination of No Adverse Effect for the project on May 6, 2015. For projects within JBAB, NCPC does not have Section 106 responsibility pursuant to Public Law 93-166, Section 610(a), which pertains to Commission review of Bolling-Anacostia Complex projects.

National Environmental Policy Act

An Environmental Assessment (EA) was prepared for this project and a Finding of No Significant Impact (FONSI) was signed on September 22, 2015. The Final EA and FONSI are

provided within the project submission. For projects within JBAB, NCPC does not have NEPA responsibility pursuant to Public Law 93-166, Section 610(a), which pertains to Commission review of Bolling-Anacostia Complex projects.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed the proposal at its August 16th, 2017 meeting. Without objection, the Committee forwarded the proposed preliminary and final site and building plans to the Commission with the statement that the proposal has been coordinated with all participating agencies. Participating agencies included: U.S. General Services Administration, National Park Service, District of Columbia Department of Transportation, District of Columbia Office of Planning, and Washington Metropolitan Area Transit Authority.

U.S. Commission of Fine Arts

The initial project, with 50 potential sites (rooftop, ground, parking lot canopy) throughout JBAB, was presented to CFA in November, 2014 and received Concept approval from the Commission.

The project submittal that includes sites 1, 4, and 34, was submitted for combined Concept/Final approval by the Commission at its January 5th meeting.

The current project, with three paved surface parking lot sites and one ground-mounted site, has been submitted for combined Concept/Final approval by the Commission at its September 7th, 2017 meeting.

ONLINE REFERENCE

The following supporting documents for this project are available online:

- Environmental Assessment (EA)
- EA Finding of No Significant Impact (FONSI)
- Project Narrative
- Project Plans
- Project Synopsis
- Submission Letter

Prepared by Michael Bello
08/17/2017

POWERPOINT (ATTACHED)

Project # 7901

New PV Solar Arrays – Sites 26, 34, 37, 57

Joint Base Anacostia-Bolling
Anacostia, Washington, DC

Submitted by the United States Department of the Navy

Preliminary and Final Site and Building Plans

Project Synopsis

Commission meeting date: September, 7

NCPC review authority: Advisory – Section 610(a) of Public Law 93-166

Applicant request: Preliminary and final approval of site and building plans

Delegated / consent / open / executive session: Consent Calendar

NCPC Review Officer: Michael Bello

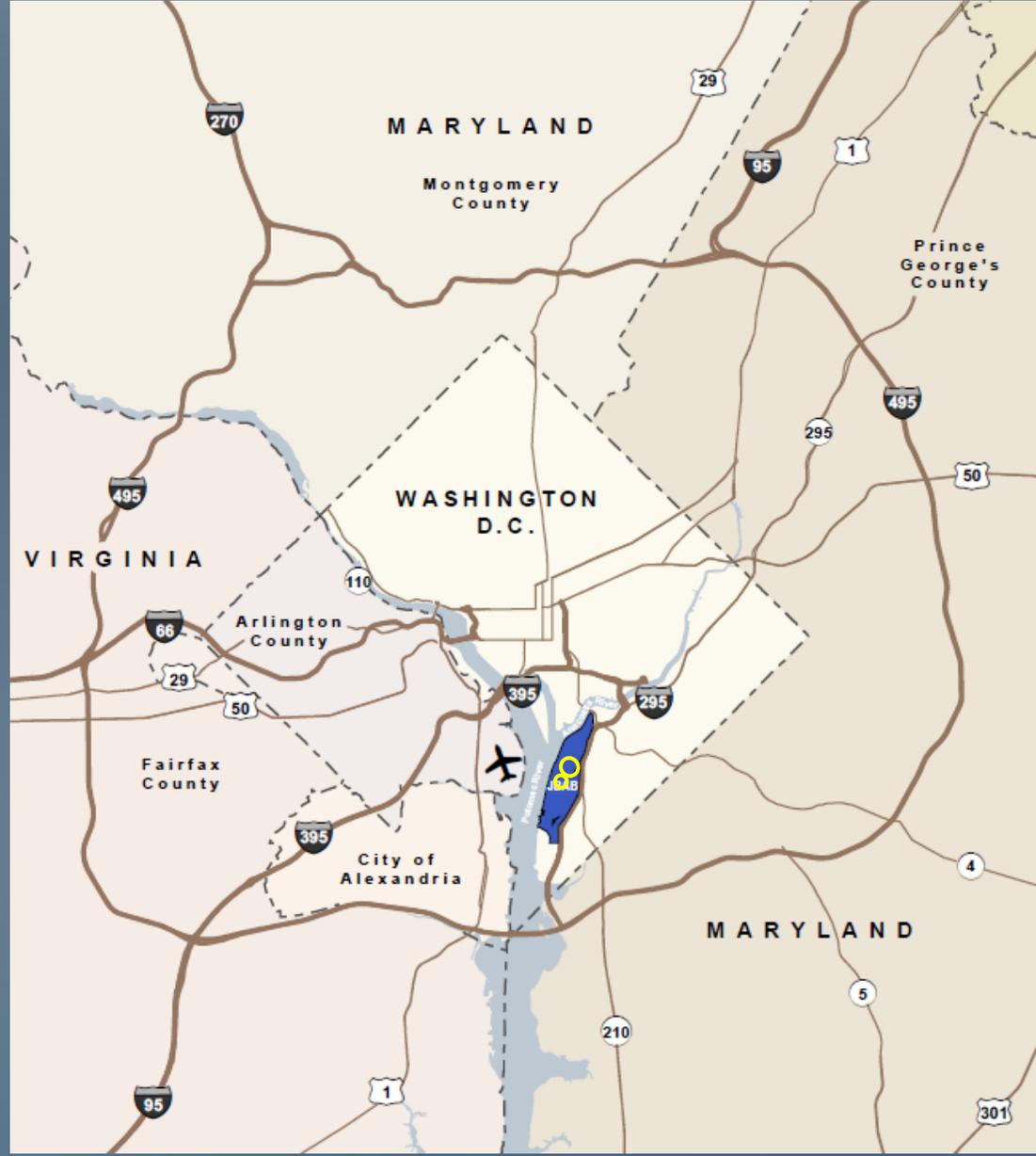
NCPC File number: 7901

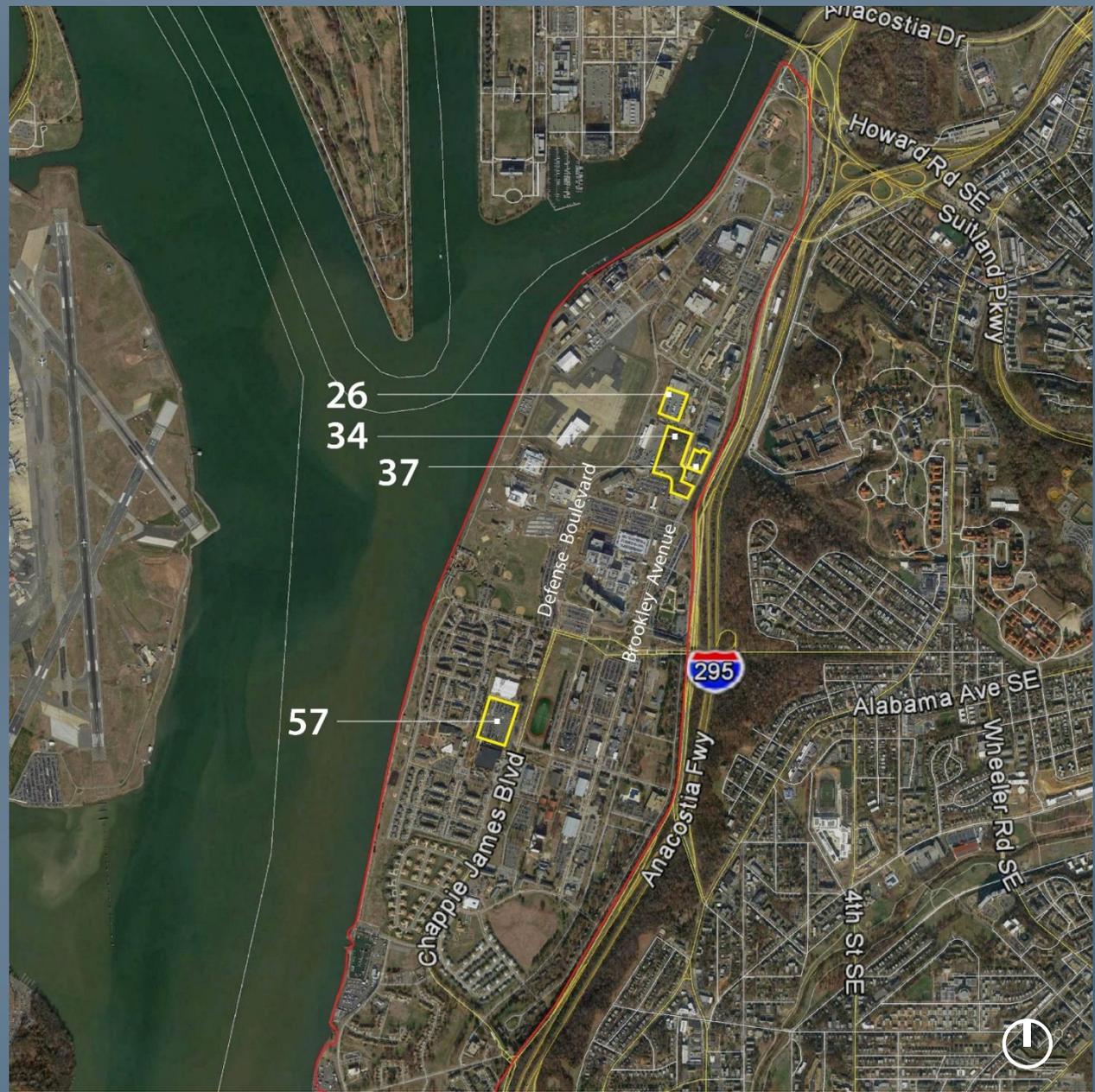
Project Summary:

In support of the Energy Policy Act of 2005 (EPAAct) (42 U.S.C. 15852) and 10 U.S.C. 2911(e) renewable energy goals, the Secretary of the Navy created the 1 Gigawatt (GW) Initiative named for the amount of renewable energy generation capacity to be deployed by 2020 (Navy 2012), either on or near Navy installations. To aid in the accomplishment of the initiative, the Navy proposes the construction of photovoltaic (PV) solar panel arrays within Joint Base Anacostia-Bolling (JBAB). The Navy has entered into a long-term lease agreement with a commercial PV developer to construct and operate a solar PV system that would generate renewable energy to supply the existing installation electrical energy grid. The Contractor will develop, construct, operate, maintain, own, and finance the solar arrays and associated equipment. The Department of Navy (DON) will purchase the energy produced by the arrays at an economical rate that results in energy savings to DON. A single award Firm Fixed Price (FFP) contract will be awarded under authority 10 U.S.C. 2922a for a 25 year contract term.

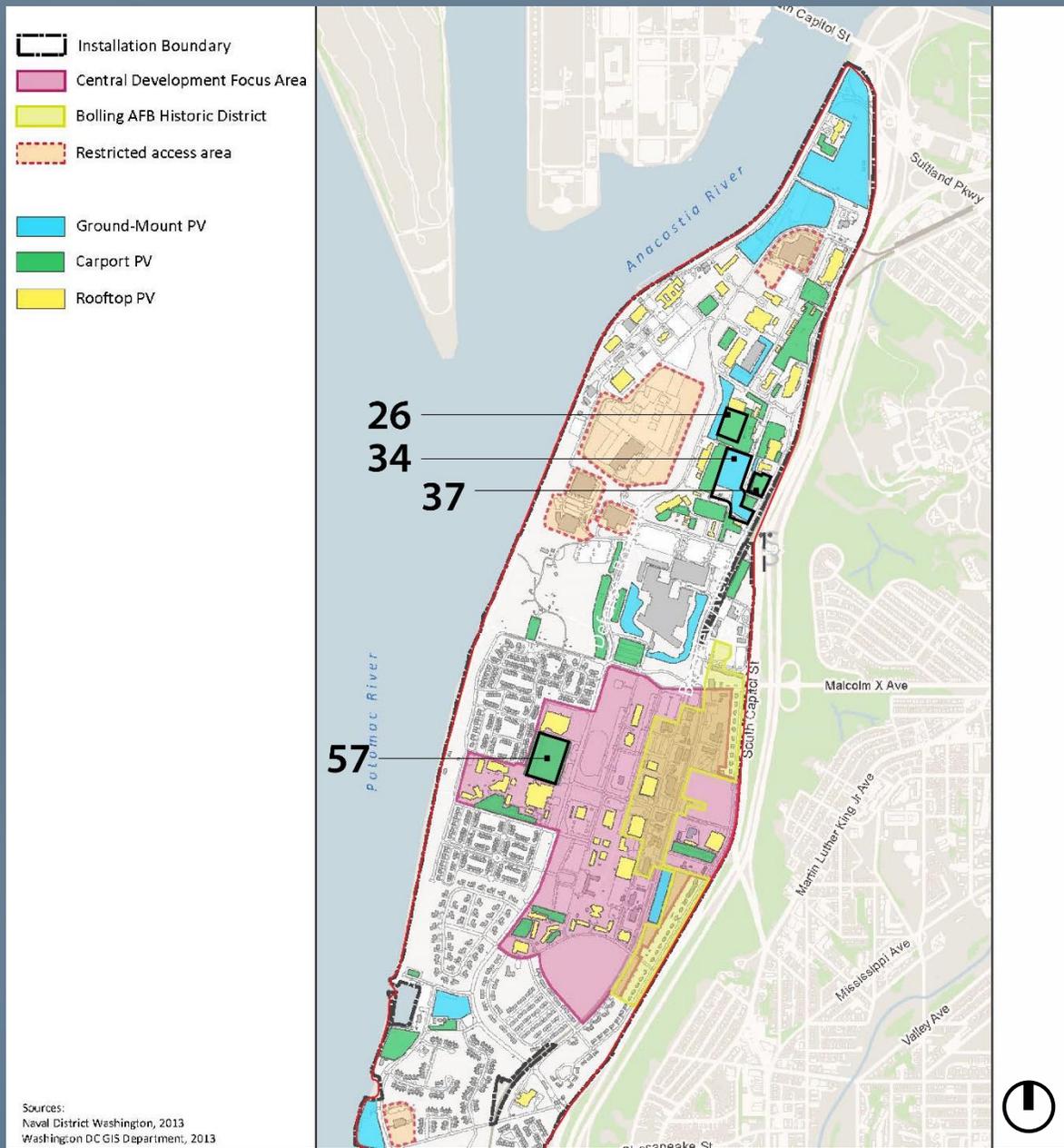
The current project proposal is to construct ground PV arrays on four (4) sites (# 26, 34, 37, 57), complete with panel mounting brackets on vertical members, steel tracking structures, and miscellaneous electrical equipment at the point of connection (i.e., inverters, combiner boxes, electrical switchgear, associated electrical wiring, and connections) and other items required for the solar PV system.

The two northern sites (26 and 34) will serve the loads for the Anacostia and the southern sites (37 and 57) will serve loads for the Bolling side. Site 26 is a 1.69 MW system which consists of 3,600 panels at 5 degree tilt with an azimuth of 199.4 degrees. Site 34 is a 2.35 MW system which consists of 5,000 panels at 10 degree tilt with an azimuth of 180 degrees (south facing). Site 37 is a 0.649 MW system which consists of 1,470 panels at 10 degree tilt with an azimuth of 110 degrees. Site 57 is 2.80 MW system which consists of 5,950 panels at a 10 degree tilt with an azimuth of 106 degrees. Site 34 will have a perimeter fence with an 8-foot-wide landscape buffer along the eastern portion of the perimeter consisting of 12-foot trees, which will exceed the height of the solar arrays without affecting energy output. The fence and landscape buffer will comply with JBAB's Installation Natural Resource Management Plan. This landscape buffer will enhance the view along South Capitol Street, as well as directly obstruct the view of the PV arrays.

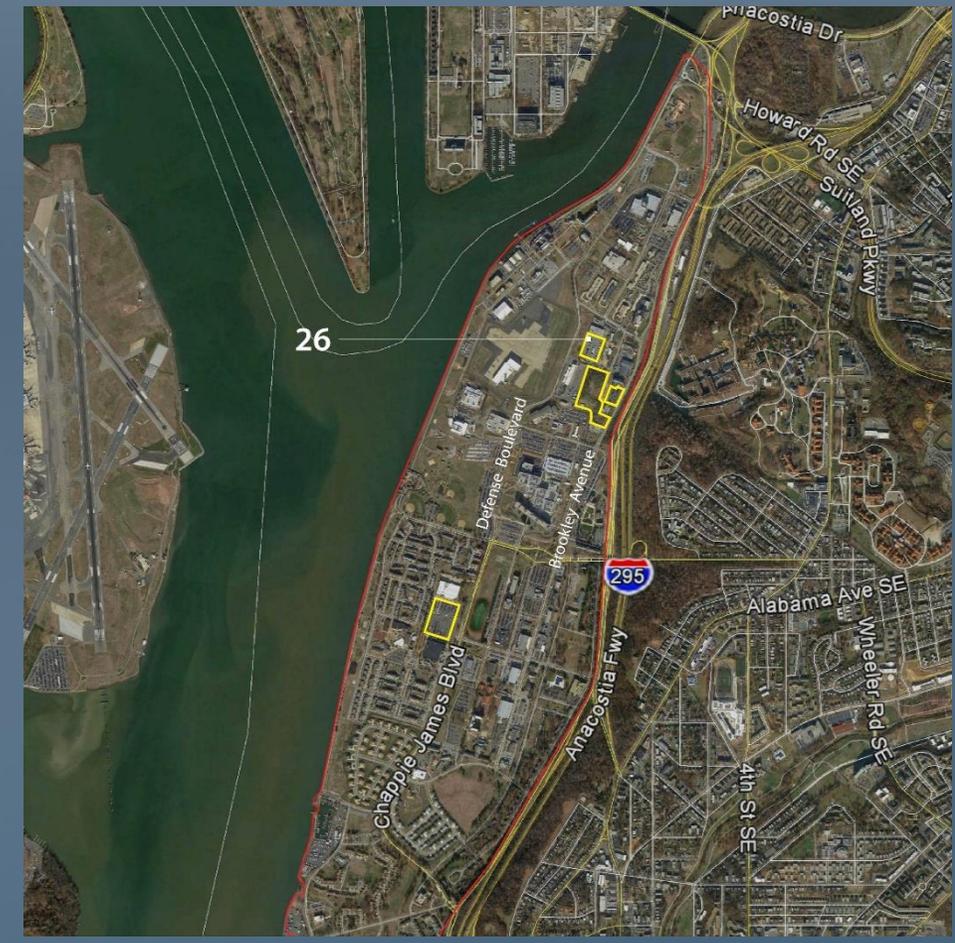




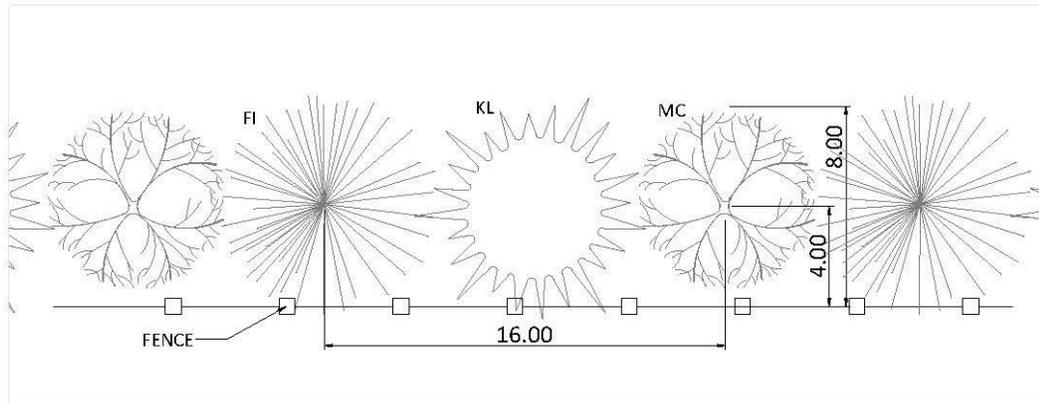
Photovoltaic PPA
Proposed Potential Sites



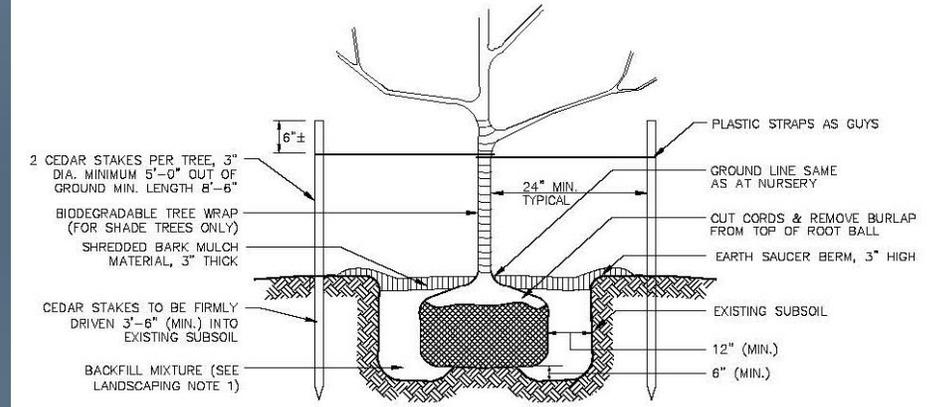
Site # 26



Site 34 will have a perimeter fence with an 8-foot-wide landscape buffer along the eastern portion of the perimeter consisting of 12-foot trees, which will exceed the height of the solar arrays without affecting energy output. The fence and landscape buffer will comply with JBAB's Installation Natural Resource Management Plan. This landscape buffer will enhance the view along South Capitol Street, as well as directly obstruct the view of the PV arrays.



TREE PLAN
NOT TO SCALE

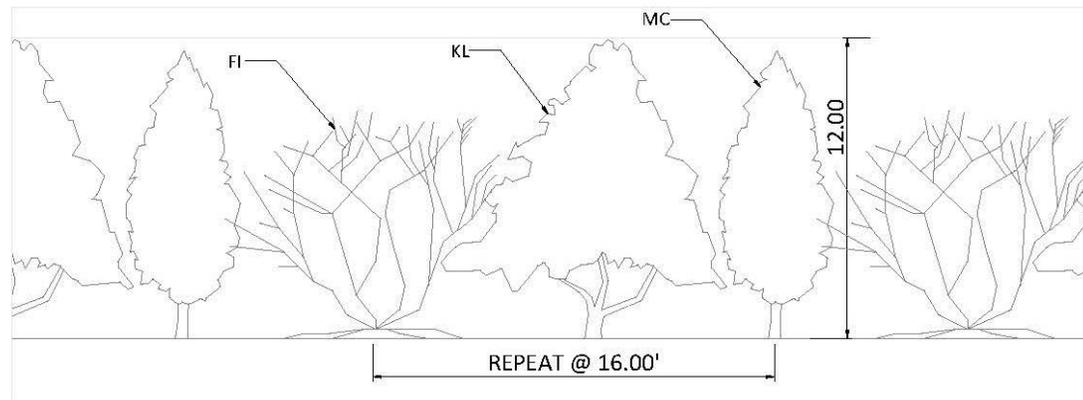


PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE	CALIPER	TYPE	SPACING	QUANTITY	NOTES
EVERGREEN TREES								
FI	FORSYTHIA X INTERMEDIA	BORDER FORSYTHIA	6'	-	B&B	-	37	FULL TO GROUND
MC	MGRELLA CERIFERA	WAX MYRTLE	6'	-	B&B	-	37	FULL TO GROUND
KL	KALMIA LATIFOLIA	MOUNTAIN LAUREL	6'	-	B&B	-	37	FULL TO GROUND
							TOTAL	111

NOTE: FINAL LOCATION OF EACH TREE/SPECIES WILL BE DETERMINED IN CONSULTATION WITH THE TOWNSHIP LANDSCAPE ARCHITECT.
 NOTE: PERMANENT GROUND COVER WILL CONSIST OF A LOW-MAINTENANCE MEADOW GRASS MIX THAT DOES NOT REQUIRE FREQUENT MOWING OR MAINTENANCE. SEED MIXTURE TO CONSIST OF OWN MIXTURE AS SUPPLIED BY SOUTH JERSEY FARMERS EXCHANGE (856) 769-0062 OR APPROVED EQUAL. 30% CHEWINGS FESCUE, 30% CREEPING FESCUE, 40% PERENNIAL RYEGRASS.

PLANTING DETAIL & PLANT LIST
NOT TO SCALE



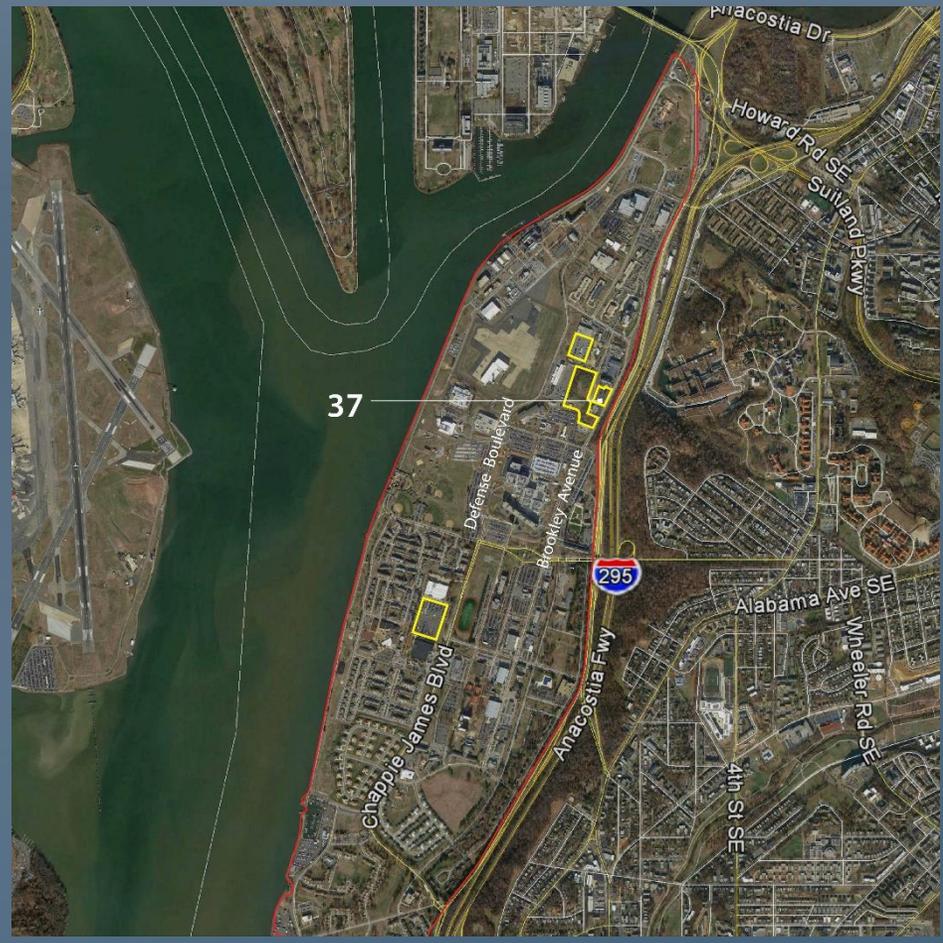
TREE ELEVATION
NOT TO SCALE

NOTE: CONTRACTOR TO SPACE PLANTINGS AS REQ'D AND TO MINIMIZE SPACES AT MATURITY.

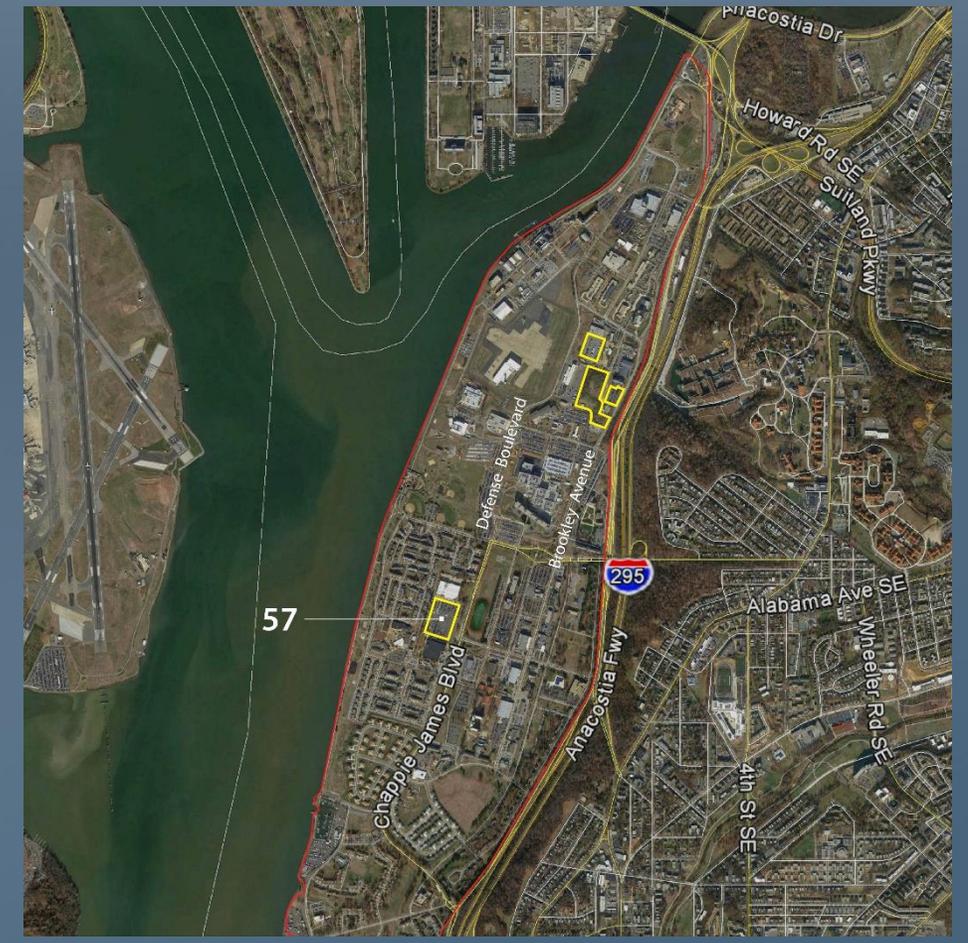
Site # 37



07/23
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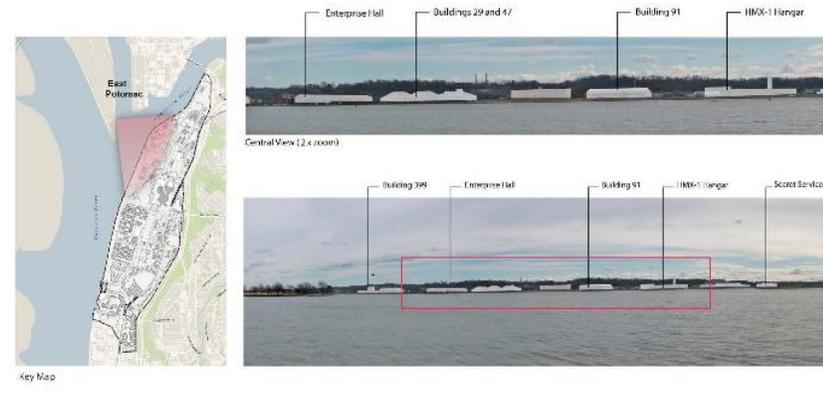
Site # 57





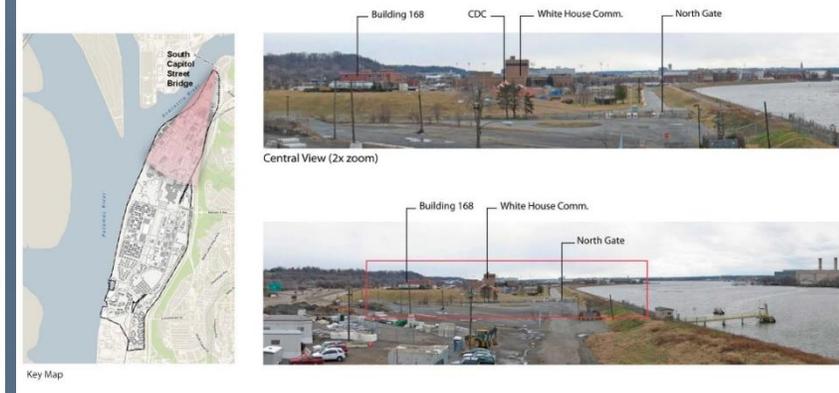
IBAB offers spectacular waterfront views of Washington, D.C.

FIGURE 2-3: VIEW FROM EAST POTOMAC PARK



Key Map

FIGURE 2-5: VIEW FROM FREDERICK DOUGLASS MEMORIAL BRIDGE



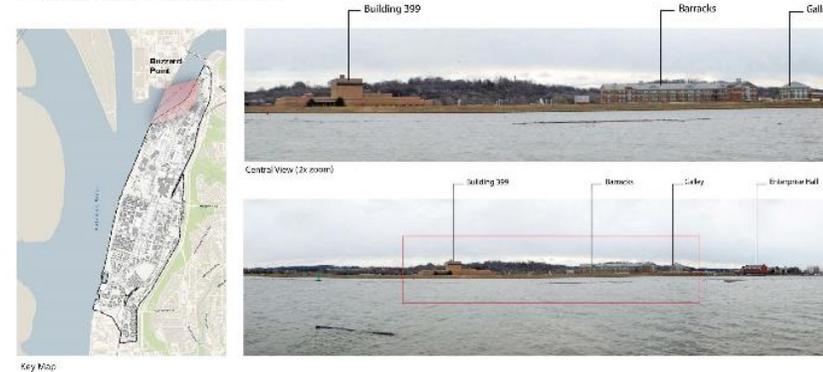
Key Map

FIGURE 2-2: VIEW FROM INDIGO LANDING



Key Map

FIGURE 2-4: VIEW FROM BUZZARD POINT



Key Map

FIGURE 2-6: VIEW FROM MALCOLM X



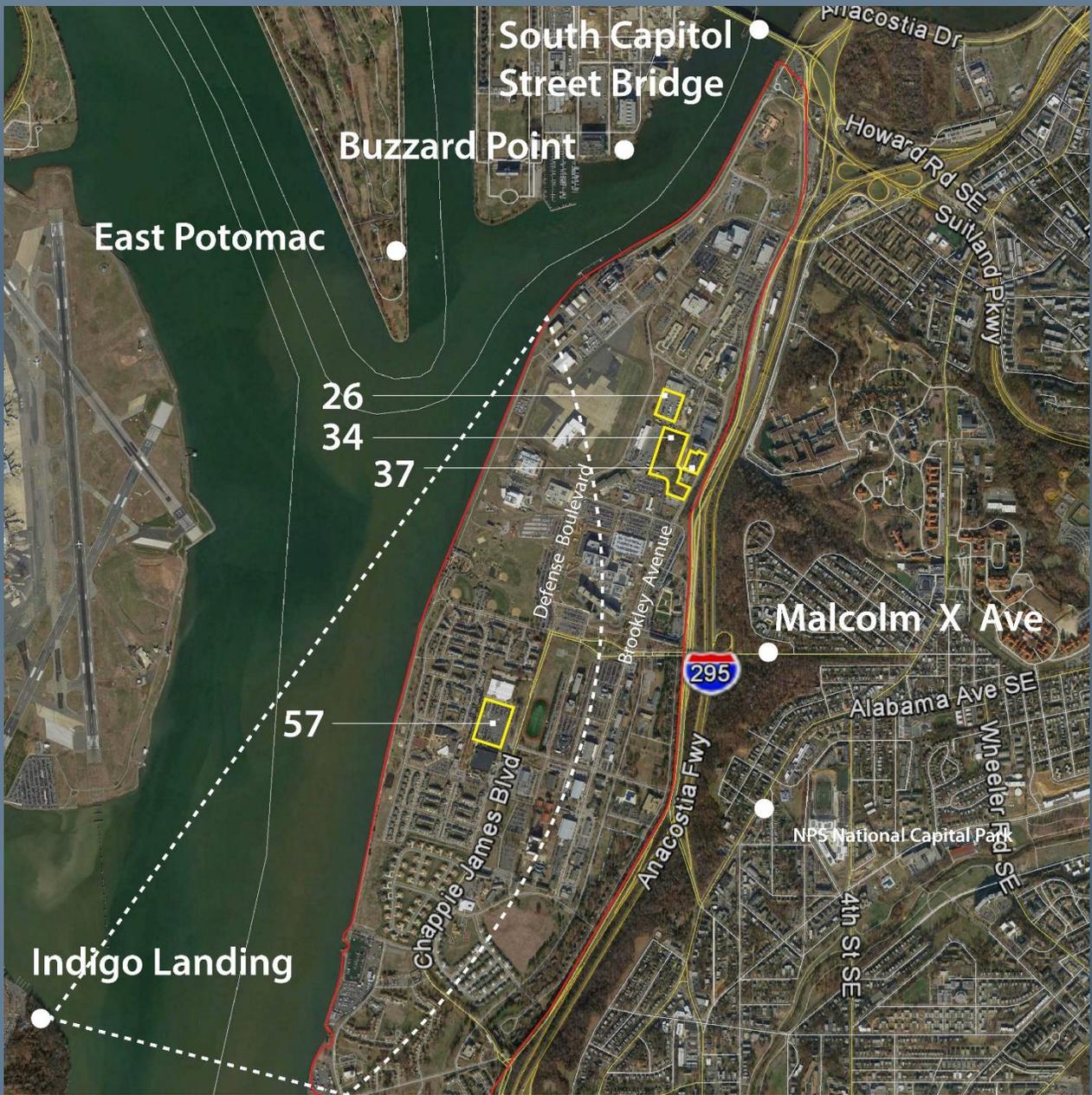
Key Map











Installation Renderings



Carport Array Panels
15' ht. typical



Ground-mounted Array Panels
Up to 8' ht.