DRAFT
ENVIRONMENTAL ASSESSMENT

OF THE PROPOSED INSTALLATION
AND OPERATION OF A

Solar Photovoltaic System

Central Alabama Veterans Health Care System (CAVHCS)-East Campus
2400 Hospital Road
Tuskegee, Macon County, Alabama

Prepared for:
Department of Veterans Affairs
and
Ameresco

Prepared by:
Potomac-Hudson Engineering, Inc.
9801 Washingtonian Boulevard, Suite 350
Gaithersburg, Maryland
www.phe.com

PHE

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ENVIRONMENTAL ASSESSMENT
SIGNATURE PAGE

LEAD AGENCY:	Department of Veterans Affairs (VA)
COOPERATING AGENCIES:	None
TITLE OF PROPOSED ACTION:	Solar Photovoltaic (PV) System, Central Alabama VA Health Care System (CAVHCS)-East Campus
AFFECTED JURISDICTION:	City of Tuskegee, Macon County, Alabama
POINT OF CONTACT:	Lee Jernigan, Energy Management Engineer, Central Alabama Veterans Health Care System, 2400 Hospital Road, Tuskegee, Alabama, 36083
PROPONENTS:	Department of Veterans Affairs (VA)

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
Lee Jernigan Energy Management Engineer CAVHCS	Linda L. Boyle, DM, MSN Director, FMS CAVHCS-East Campus	Ashok Singh GEMS Coordinator CAVHCS-East Campus

DOCUMENT DESIGNATION: Draft Environmental Assessment

ABSTRACT: In accordance with the National Environmental Policy Act (NEPA) and other federal environmental regulations, this Environmental Assessment (EA) evaluates VA's Proposed Action to install and operate one ground-mounted solar photovoltaic (PV) system consisting of two connected PV arrays at the Central Alabama Veterans Affairs Health Care System (CAVHCS)-East Campus, located at 2400 Hospital Road, Tuskegee, Macon County, Alabama. The Proposed Action consists of the installation and operation of two connected PV arrays with a combined system capacity of 900 kilowatts (kW) and an estimated output of 1,782 megawatt-hours (MWh) per year. The solar PV arrays would be installed in an approximately 3-acre area of landscaped lawn on the west side of the campus north of West Gate Road near Building 69.

This EA discusses two alternatives: (1) the Preferred Action Alternative (Proposed Action) – installation of a ground-mounted PV system as described above; and (2) the No Action Alternative. This EA evaluates possible effects to aesthetics; land use; air quality; the noise environment; geology, topography, and soils (including erosion and sedimentation); biological resources, including threatened and endangered species; water resources and wetlands; cultural resources; socioeconomics; Environmental Justice (Executive Order [EO] 12898); Protection of Children (EO 13045); infrastructure; transportation; and solid and hazardous waste.

This EA concludes there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with implementing the Preferred Action Alternative, provided routine management measures specified in this EA are implemented. This EA concludes that a Finding of No Significant Impact (FONSI) is appropriate for implementation of the Preferred Action Alternative and that an Environmental Impact Statement (EIS) is not required.

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Table of Contents

SECTION **PAGE**

LIST OF ACRONYMS v

SECTION 1: PURPOSE OF AND NEED FOR THE PROPOSED ACTION 1
1.1 Introduction 1
1.2 Background 1
1.3 Proposed Action 3
1.4 Purpose and Need 3
1.5 Environmental Assessment Process 4
1.6 Public Involvement and Agency Coordination 4
1.6.1 Public Review 4
1.6.2 Agency Coordination 5
1.6.3 Native American Consultation 5

SECTION 2: DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES 7
2.1 Introduction 7
2.2 Proposed Action Description 7
2.3 Alternatives Considered 10
2.3.1 Alternatives Development (Screening Criteria) 10
2.3.2 Evaluated Alternatives 11
2.3.3 Alternatives Eliminated from Detailed Consideration 12

SECTION 3: ENVIRONMENTAL IMPACT ANALYSIS 13
3.1 Introduction 13
3.2 Resources Analyzed 13
3.3 Resources Considered 13
3.4 Air Quality and Greenhouse Gases 16
3.4.1 Cultural Resources 18
3.4.2 Solid and Hazardous Waste 20
3.4.3 Water Resources 21
3.4.4 Transportation and Parking 24
3.4.5 Utilities 24
3.5 Mitigation Measures 25
3.6 Cumulative Effects 26

SECTION 4: REFERENCES 27

LIST OF TABLES

Table 1. Technical Resource Areas Assessed in the Environmental Assessment 14
Table 2. Proposed Action Emissions 18
Table 3. Long-Term Reduction in CO_2 Equivalents from the Proposed Action 18

LIST OF FIGURES

Figure 1. Site Location Map 2
Figure 2. Proposed PV System Location 8
Figure 3. Proposed PV System Site Layout and Details 9

LIST OF APPENDICES

Appendix A. Consultation Documents
Appendix B. "Attachment C – Information Concerning Historic Preservation" and Checklist from the *Veterans Administration Environmental Compliance Manual*
Appendix C. Public Notices and Comments
Appendix D. Construction Emissions Calculations
Appendix E. Draft Finding of No Significant Impact

LIST OF ACRONYMS

ADEM	Alabama Department of Environmental Management
ADNR	Alabama Department of Conservation and Natural Resources
AMEA	Alabama Municipal Electric Authority
APE	Area of Potential Effect
BMP	Best Management Practice
CAA	Clean Air Act
CAVHCS	Central Alabama Veterans Affairs Health Care System
CBMPP	Construction Best Management Practices Plan
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CLC	Community Living Center
CO	carbon monoxide
CO_2	carbon dioxide
CY	calendar year
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EO	Executive Order
ESPC	Energy Saving Performance Contract
°F	degrees Fahrenheit
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FY	fiscal year
GHG	greenhouse gas
GI/LID	green infrastructure/low impact development
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
kV	kilovolt
kWh	kilowatt hour
MWh	megawatt hour
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
NOx	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OSHA	Occupational Safety and Health Administration
PM_{10}	particulate matter less than or equal to 10 micrometers in aerodynamic size
$PM_{2.5}$	particulate matter less than or equal to 2.5 micrometers in aerodynamic size
PV	photovoltaic
QCI	Qualified Credentialed Inspector
QCP	Qualified Credentialed Professional
ROI	Region of Influence
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	sulfur dioxide
SME	Subject Matter Expert
tpy	tons per year
UBT	Utilities Board of Tuskegee
U.S.	United States
USC	United States Code
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VA	Department of Veterans Affairs
VISN	Veterans Integrated Services Network
VOC	volatile organic compound
VSQG	very small quantity generator

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SECTION 1: PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 Introduction

This section provides the reader with necessary introductory and background information concerning the Proposed Action for proper analytical context; identifies the purpose of and need for the Proposed Action and the federal decision to be made; and provides a summary of public/agency involvement (and key issues identified).

1.2 Background

The Department of Veterans Affairs (VA), a federal agency, currently operates the approximately 170-acre Central Alabama VA Health Care System (CAVHCS)-East Campus (also referred to as the "facility"), located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Figure 1). The CAVHCS was established January 1, 1997 from the merger of the Montgomery and Tuskegee VA Medical Centers, which include community-based outpatient clinics in Dothan, Alabama and Columbus, Georgia. These four CAVHCS sites serve 134,000 veterans in 43 counties in the central and southeastern portions of Alabama and western Georgia. A member of the Atlanta Veterans Integrated Services Network (VISN) 7, CAVHCS's mission is to provide excellent services to veterans across the continuum of healthcare.

The East (Tuskegee) and West (Montgomery) campuses are located approximately 40 miles apart. The East Campus is located on 170 acres of land situated in a rural setting adjacent to the historic Tuskegee University and Moton Field, home of the Tuskegee Airmen. The West Campus is situated on 52 acres located in a residential community adjacent to city school property and approximately 5 miles east of downtown Montgomery. Services include: Primary Care at all four sites; Medical and Surgical Care; a broad range of Mental Health programs; Geriatrics and Extended Care, and a Homeless Domiciliary.

The federal government has passed legislation and provided directives to federal agencies, such as VA, that require these agencies to reduce energy use, reduce reliance on traditional fossil fuel-based energy sources, and increase the use of renewable energy sources at their facilities. Renewable energy sources include wind, solar, geothermal, biomass, and other sustainable methods. The following provides a brief summary of these federal requirements to which VA is subject:

- In 2005, Congress passed the **Energy Policy Act**. Section 203 of this Act requires that, of the total amount of electric energy the federal government consumes during any fiscal year (FY), specific amounts shall be from renewable energy sources. Section 203 of the Energy Policy Act specifically requires that, for FYs 2013 and beyond, not less than 7.5 percent of the federal agency's consumed energy must be renewable in nature. In addition, the Act specifies that, "For the purposes of determining compliance, the amount of renewable energy saved shall be doubled if: (a) the renewable energy is produced and used at the federal facility; (b) the renewable energy is produced on federal lands and is used at a federal facility; or (c) the renewable energy is produced on Indian land and used at a federal facility."

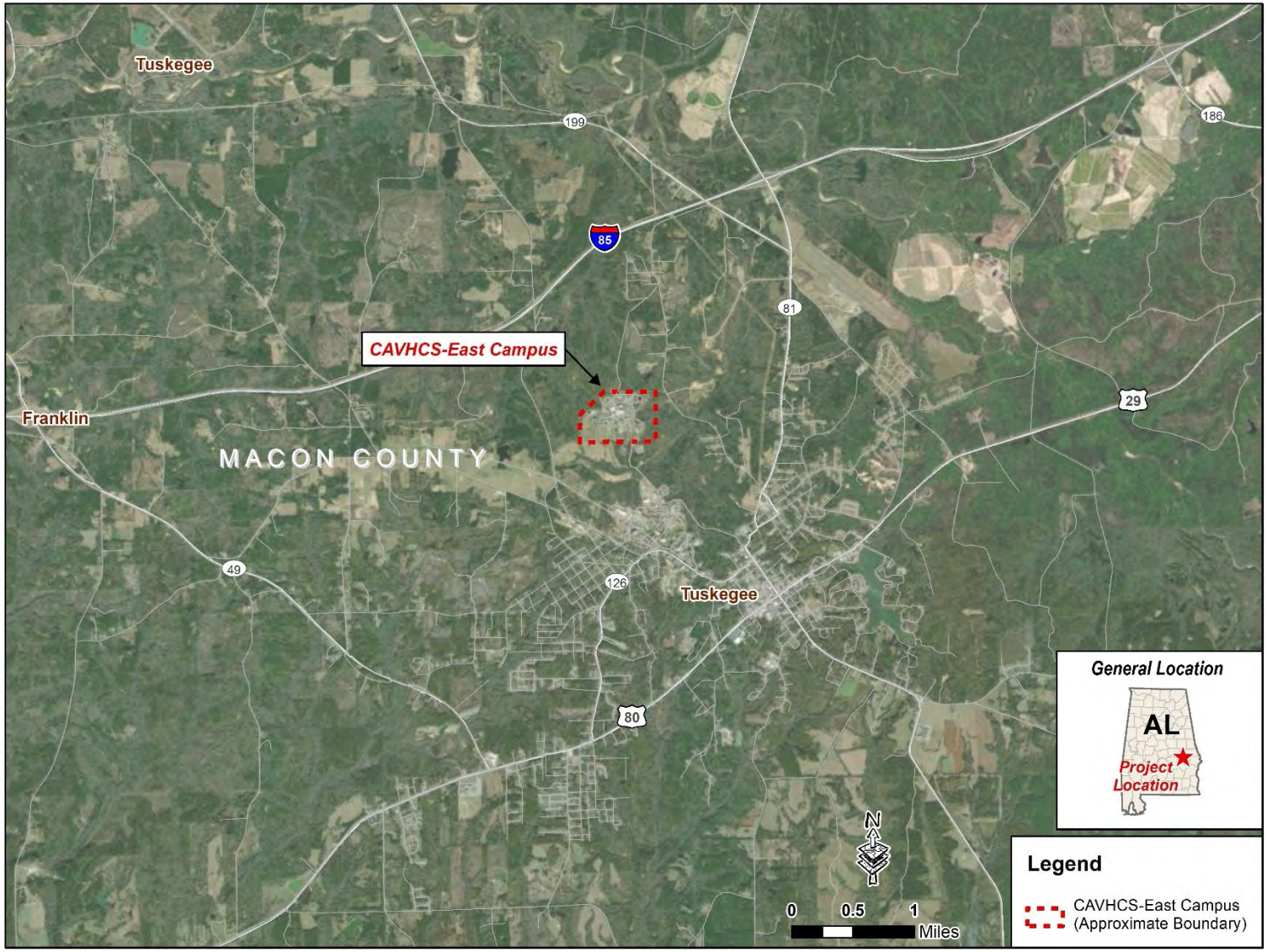

Figure 1. Site Location Map

- The **Energy Independence & Security Act (EISA) of 2007** requires that all new federal buildings have at least 30 percent of the hot water demand met with a solar hot water system if it is life-cycle cost effective. The EISA also establishes a requirement for all new federal buildings to have a reduced dependence on fossil fuels. According to the EISA, "…(new) buildings shall be designed so that the fossil fuel-generated energy consumption of the buildings is reduced, as compared with such energy consumption by a similar building in FY 2003."

- **Executive Order (EO) 13834,** *Regarding Efficient Federal Operations* (May 2018) sets goals for federal agencies to achieve and maintain annual reductions in building energy use and implement energy efficiency measures that reduce costs. The EO also directs the federal government to reduce water consumption, comply with stormwater management requirements, integrate energy efficiency requirements and sustainable design principles into construction projects, implement waste prevention and recycling measures, and to utilize performance contracting to achieve energy, water, building modernization, and infrastructure goals.

1.3 Proposed Action

In order to comply with the energy saving requirements of the Energy Policy Act, EISA, and EO 13834, VA has elected to enter into an Energy Saving Performance Contract (ESPC) with Ameresco, Inc. ESPCs allow the government to partner with private sector companies to install energy and water conservation measures without the need for upfront appropriations. In this case, Ameresco would pay all costs involved in identifying and installing new or upgraded energy-efficient equipment and would obtain competitive financing from a third-party lender. In turn, VA would repay Ameresco over a set term from the energy and water savings associated with the more efficient equipment. At the end of that term, VA would own all of the improvements and retain all of the future savings.

Ameresco has identified an opportunity to install and operate onsite renewable energy generation systems at the CAVHCS-East Campus, specifically a new photovoltaic (PV) system which would capture energy from the sun and transform it into electrical energy that can be used by VA. VA's Proposed Action is to direct Ameresco to construct and operate the PV system which would allow VA to meet its energy-saving goals.

1.4 Purpose and Need

The purpose of the Proposed Action is to provide the CAVHCS-East Campus with an onsite cost-efficient renewable energy source that would offset energy requirements in the future while meeting federal government renewable energy directives in the Energy Policy Act, EISA, and EO 13834. It would also allow VA to support the development of local renewable energy infrastructure while reducing energy costs.

The Proposed Action is needed in order to achieve the goals and objectives of the federal energy requirements described in Section 1.2. The PV system would meet this need by improving energy efficiency and reducing energy consumption at the CAVHCS-East Campus. In addition, the project would result in reduced overall operating costs to VA and a reduction of greenhouse gases (GHGs) when all factors are accounted for, including energy costs, maintenance, operation, and future capital expenditures.

1.5 Environmental Assessment Process

This Environmental Assessment (EA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with VA's Proposed Action of installing and operating a PV system at the CAVHCS-East Campus. As a federal agency, VA is required to incorporate environmental considerations into their decision-making process for the actions they propose to undertake. This is done in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 et seq.), the Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs Actions*), and VA *NEPA Interim Guidance for Projects* (VA 2010). In accordance with these regulations, VA has prepared this EA. This EA allows for public input into the federal decision-making process; provides federal decision-makers with an understanding of potential environmental effects of their decisions, before making these decisions; and documents the NEPA process.

Taking into account potential environmental, cultural, and socioeconomic effects, VA will ultimately decide, in part based on the analysis presented in this EA, whether VA should implement the Proposed Action and, as appropriate, carry out environmental protection measures to reduce effects on the environment. These environmental protection measures would include appropriate best management practices (BMPs) that are routinely incorporated into all proposed onsite actions. These measures serve to proactively mitigate adverse environmental effects. BMPs differ from mitigation measures, which are defined as project-specific requirements, not routinely implemented, necessary to reduce identified potentially significant adverse environmental effects to less-than-significant levels.

1.6 Public Involvement and Agency Coordination

VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR Part 26, VA's policy for implementing the NEPA. VA's Environmental Compliance Manual and the *NEPA Interim Guidance for Projects* (VA 2010) provide additional guidance.

Consideration of the views and information of all interested persons promotes open communication and enables better federal decision-making. Agencies, organizations, and members of the public with a potential interest in the Proposed Action, including federally recognized Native American tribes and minority, low-income, and disadvantaged persons, are urged to participate. Appendix A provides a record of public involvement and agency coordination associated with this EA.

1.6.1 Public Review

VA has prepared and will publicly circulate this draft EA and Finding of No Significant Impact (FONSI). The draft FONSI has been included in Appendix E of this EA. The draft EA and FONSI will be placed for review at the Macon County-Tuskegee Public Library (302 South Main Street, Tuskegee, Alabama 36083) for a 30-day public review and comment period by interested parties. The 30-day comment period will be initiated with a Notice of Availability (NOA) that will be published in *The Tuskegee News* and *The Montgomery Advertiser*. A copy of the NOA is included in Appendix C. Should substantive comments be received during the public review process, VA will consider these comments carefully, address these comments, and determine whether a FONSI is the appropriate NEPA decision document, per the specified regulations.

Based on the analysis presented in this EA and summarized in the FONSI, VA has determined that the Proposed Action would not result in significant adverse cultural, socioeconomic, or environmental effects, provided the protective measures identified in this EA are implemented.

1.6.2 Agency Coordination

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding federal Proposed Actions. CEQ Regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts.

Through the IICEP process, VA notifies relevant federal, state, and local agencies and allows them sufficient time to make known their environmental concerns specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the EA. This coordination is in compliance with EO 12372 (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires federal agencies to cooperate with and consider state and local views in implementing a federal proposal. It also constitutes the IICEP process for this EA.

Agencies consulted for this EA include: the U.S. Environmental Protection Agency (USEPA), Region 4; the U.S. Department of Transportation (USDOT); the U.S. Fish and Wildlife Service (USFWS), Alabama Ecological Services Field Office; the Alabama Department of Conservation and Natural Resources (ADNR); the Alabama Department of Environmental Management (ADEM); the Alabama Natural Heritage Program; and the Alabama Historic Commission/State Historic Preservation Office (SHPO). The City of Tuskegee and County of Macon were also consulted. Agency information and comments have been incorporated into this EA.

To date, VA has received the following response:

- The **USFWS** responded on March 20, 2019, concurring that no significant adverse impacts to fish and wildlife resources would occur with implementation of the Proposed Action.

- The **SHPO** provided an interim response on April 3, 2019, requesting some minor, additional information about the project. Consultation with the SHPO is ongoing.

- The **USEPA, Region 4** responded on April 23, 2019, with concerns regarding potential impacts to stormwater runoff and surface water. The response also requested more details regarding the decision-making process to install a ground-mounted PV array instead of rooftop or carport-type arrays. These comments have been addressed in Sections 3.4.3 and 3.5.

  USEPA also expressed concerns regarding threatened and endangered species habitat, which have been alleviated by the above-referenced response from USFWS. Additionally, USEPA requested further information as to the extent that rooftop and/or carport PV arrays were considered and the reasons for their dismissal from consideration; this is addressed in Section 2.3.3.

No other responses have been received at the time of this draft EA. Appendix A provides copies of relevant correspondence.

Subsequent to the submittal of the initial consultation letters discussed above, the scope of the Proposed Action was expanded in May 2019 from a single PV array to the currently proposed two-array system described in Chapter 2. As a result, follow-up consultation letters were sent to each of the agencies listed herein to identify the specific changes to the Proposed Action. Copies of these follow-up letters are also included in Appendix A.

1.6.3 Native American Consultation

VA conducts consultation with federally recognized Native American tribes as required under NEPA, the National Historic Preservation Act (NHPA), and the Native American Graves Protection and Repatriation Act. Tribes are invited to participate in the EA and NHPA Section 106 processes as Sovereign Nations per EO 13175, *Consultation and Coordination with Indian Tribal Governments,* 6 November 2000. Currently, there are no federally recognized tribes in Macon County, Alabama. The only federally recognized tribe of Native Americans in the state of Alabama is the Poarch Band of Creek Indians, located in Escambia County, approximately 150 miles southwest of Tuskegee.

A consultation letter was submitted the Poarch Band of Creek Indians on March 8, 2019. No response has been received at the time of this report.

SECTION 2: DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

This section provides the reader with necessary information on the Proposed Action and its alternatives, including those that VA initially considered, but eliminated, and the reasons for eliminating them. The screening criteria, alternatives development, and review process applied by VA to hone the number of reasonable alternatives are described, providing the reader with an understanding of VA's rationale in ultimately retaining for analysis a finite number of reasonable alternatives that meet VA's purpose of and need for the Proposed Action.

2.2 Proposed Action Description

VA's Proposed Action is to direct Ameresco to install and operate one ground-mounted PV system at the CAVHCS-East Campus. The PV system would be operated by Ameresco for a period of 25 years during which VA would pay for the project through the energy savings that are received as a result of the PV system. The PV system would provide electricity to the CAVHCS-East Campus, portions of which operate continually.

VA chose an open grass field located north of West Gate Road and west of Building 69 as the proposed location for the PV arrays, based on site selection criteria discussed in Section 2.3.1. Combined, the two PV arrays would encompass a total area of approximately 3 acres. PV sub-array #1 would be located on an approximately 1.3-acre area on the north side of the project area, while PV sub-array #2 would occupy an approximately 1.9-acre area to the south. Both arrays would be surrounded by a chain-link perimeter fence and connected by an underground (buried) electrical line approximately 510 feet in length. A second buried electrical conduit, approximately 500 feet in length, would also extend from PV sub-array #1 to a pad-mounted switch adjacent to Building 69. Figure 2 depicts the proposed site location within the CAVHCS-East Campus, while Figure 3 presents a rendering of the proposed PV system at its proposed location. The proposed PV system project would be implemented under the ESPC Program for Veterans Administration Medical Centers, which is currently being prepared and is expected to be finalized in 2019. As proposed in the ESPC:

- VISN 7 will partner with Ameresco, a private-sector company, to install various energy and water conservation measures without the need for upfront appropriations.
- Ameresco will take on the performance risk of the equipment and obtain competitive financing from a third-party lender.
- VISN 7 will pay Ameresco back over time from the energy and water savings associated with the more efficient equipment.

One of the primary benefits of the contract is that it provides a solution to more immediately upgrade aging infrastructure and critical building systems when appropriations are not readily available. Under the contract, the proposed PV system at CAVHCS-East Campus would be fully owned and operated by Ameresco while being leased to VA for a period of 25 years. At the end of the 25-year term, VA would own the equipment.

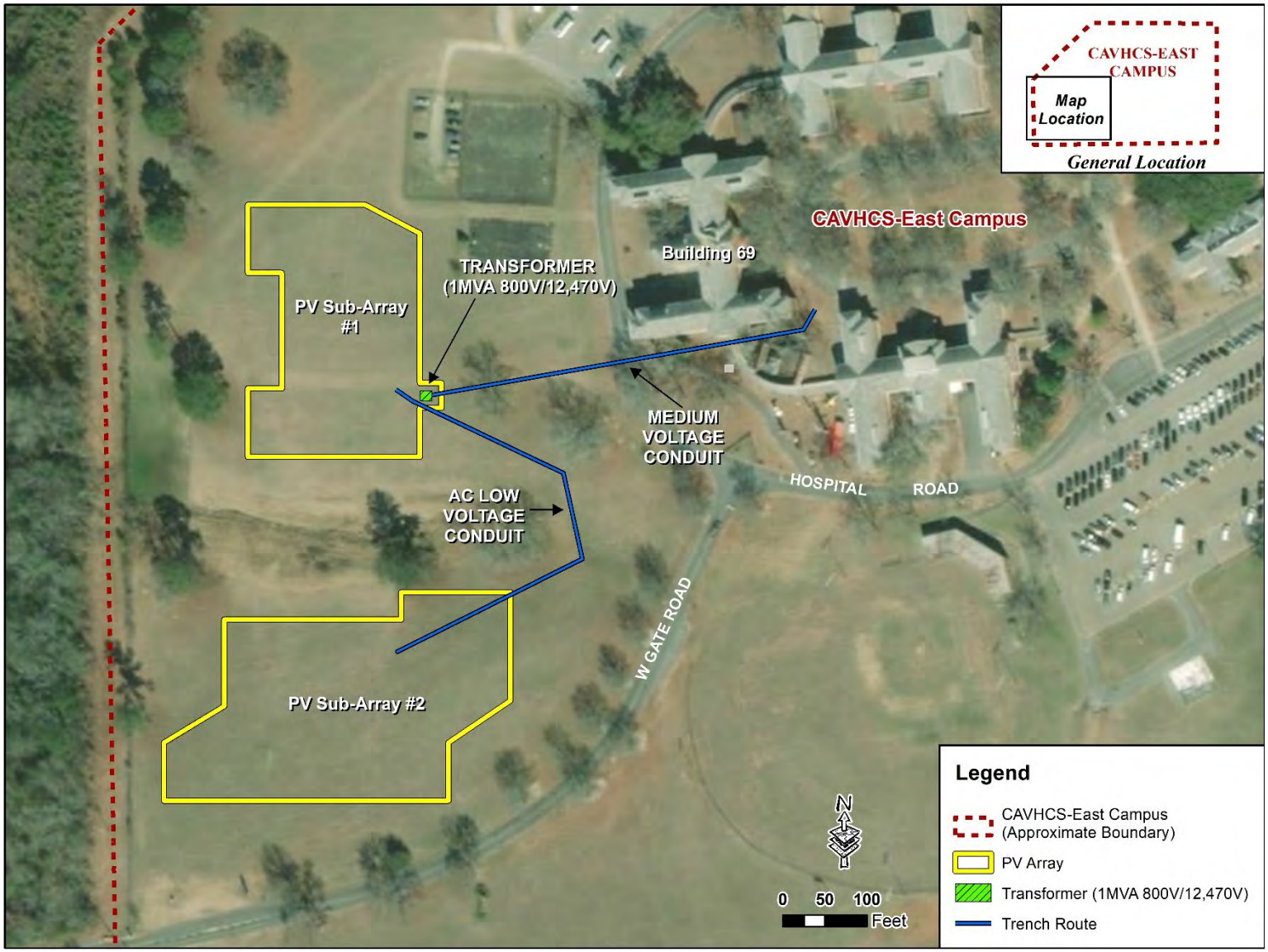

Figure 2. Proposed PV System Location

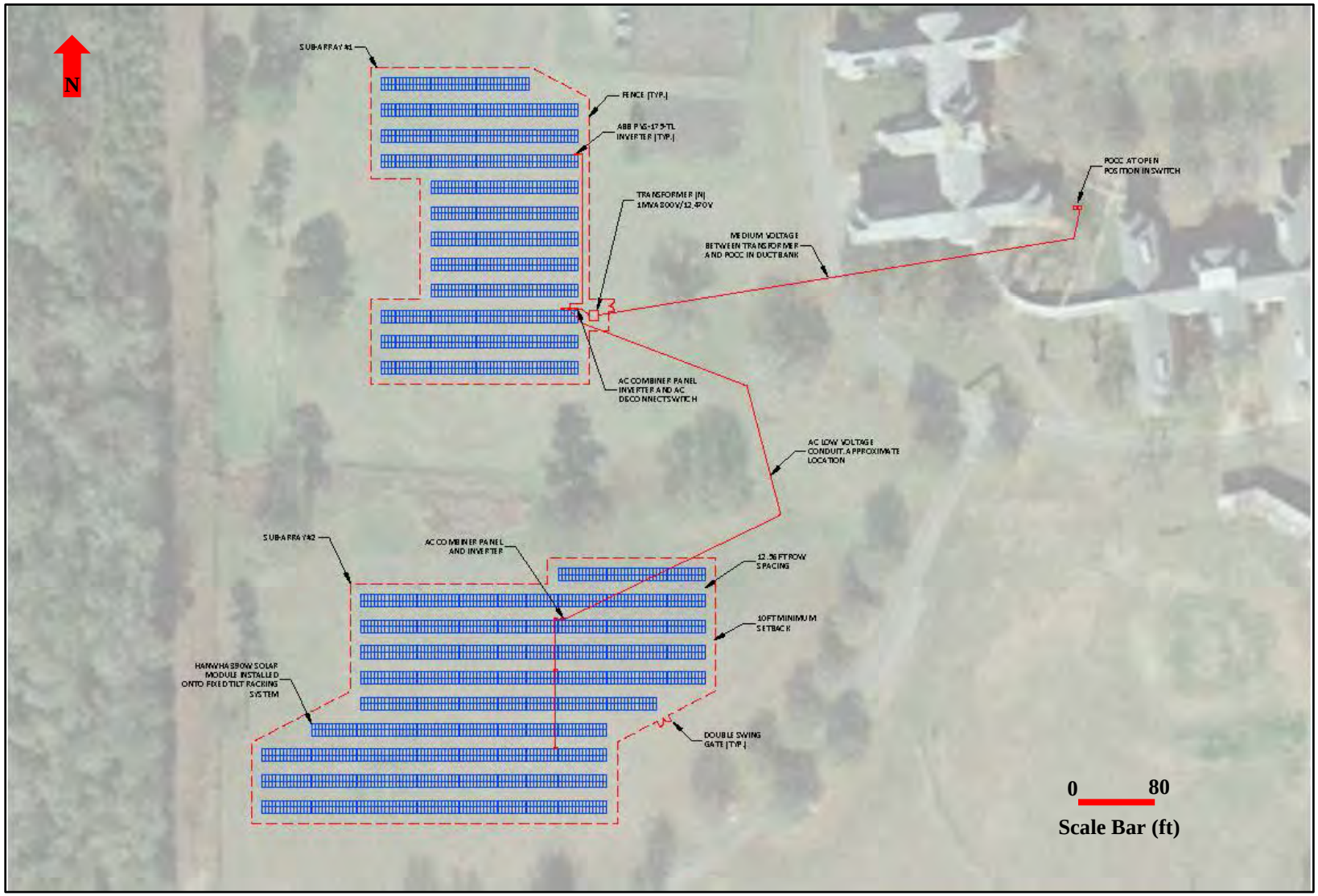

Figure 3. Proposed PV System Site Layout and Details

The Proposed Action would generate an approximate output of 1,782 megawatt hours (MWh) per year. Performance would depend on the season (highest output in spring and fall), weather conditions (highest output in full sun), and time of day (highest output at mid-day). The electric power generated by the Proposed Action would be consumed by the buildings onsite; no excess power would be released to the main utility grid. The Proposed Action does not include batteries or other storage devices for electric power generated by the PV system. Electric power generated by the Proposed Action would represent approximately 15 percent of CAVHCS-East Campus's total electricity load, on average, based on the CAVHCS-East Campus's total electrical demand for calendar year (CY) 2016 and CY2017.

In the event of a power failure, the PV system would not be equipped to provide backup power to the CAVHCS-East Campus. A total of 14 existing, onsite diesel-powered generators (10 stationary and 4 portable) provide backup power for key components of the facility.

Prior to construction, Ameresco would obtain all required permits from appropriate government authorities, including required building permits. VA would also work with the Utilities Board of Tuskegee (UBT), the CAVHCS-East Campus's current electric service provider, to appropriately coordinate and connect the proposed PV system to the existing electrical infrastructure. The proposed PV system installation would be coordinated with current and future proposed construction on the CAVHCS-East Campus to avoid future conflicts.

Currently, VA anticipates a 6-month construction period, although it likely would be completed in a shorter time period.

2.3 Alternatives Considered

NEPA, CEQ Regulations, and 38 CFR Part 26 require that all reasonable alternatives be rigorously explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified along with a brief discussion of the reasons for eliminating them. For purposes of analysis, an alternative was considered "reasonable" only if it would enable VA to accomplish the primary mission of providing a new onsite solar PV system at the CAVHCS-East Campus that meets the purpose of and need for the Proposed Action. "Unreasonable" alternatives would not enable VA to meet the purpose of and need for the Proposed Action.

2.3.1 Alternatives Development (Screening Criteria)

VA undertook a sequential planning and screening process, seeking reasonable alternatives for the Proposed Action. This process is summarized below:

- The chosen alternative should assist VA in meeting the requirements of the Energy Policy Act of 2005 and the EISA, while also meeting the goals of the ESPC (see Section 1.3). VA did not consider offsite locations, as these would not maximize the credits under the Energy Policy Act.

- The chosen alternative should consider the amount of open space at the CAVHCS-East Campus available for construction and should consider the age and significance of the buildings when considering ground-mounted versus roof-mounted arrays.

- The chosen alternative should have been deemed feasible in terms of size, cost, and potential impacts by the feasibility study completed by NOVI Energy (2013).

The screening criteria listed above, indicated that a solar PV array was the preferred form of renewable energy feasible for installation at the CAVHCS-East Campus. The following screening criteria helped VA (and Ameresco) select potential installation sites within the facility:

- **Operation of the Facility:** The PV system should not interfere with the current or future proposed operations of the CAVHCS-East Campus, including transportation, parking, infrastructure, and maintenance activities or sites. In addition, the proposed PV location should not conflict with future site development plans or projects. The condition and age of existing buildings and rooftops was also considered.

- **Solar Exposure:** In order to maximize potential energy output from each PV system, the system should be sited to maximize the amount of sunlight it receives daily, without shading from adjacent structures or trees.

- **Light and Glare:** The sensitive location of the system should minimize the potential for light and glare effects to surrounding properties and land uses; existing and proposed land uses adjacent to the facility should not be taller than the proposed PV location. This would simultaneously avoid current and future solar exposure limitation issues.

- **Accessibility:** The PV location should be readily accessible for construction and maintenance purposes.

- **Aesthetics:** The PV location should not detract from the visual aspects of the CAVHCS-East Campus. The PV system should not result in an adverse effect to the viewshed of any historic properties as defined under Section 106 of the NHPA.

- **Cost:** The PV system should be installed in a manner that minimizes costs, such as the potential costs incurred through construction of new infrastructure to support the proposed project.

- **Environmental:** Each proposed PV location must have few environmental concerns, such as water resources, floodplains and flooding, cultural or biological concerns, or other regulated environmental resources.

2.3.2 Evaluated Alternatives

Preferred Action Alternative (Proposed Action)

Under the Preferred Action Alternative, VA would install and operate PV system at the location shown in Figure 2 and would implement the Proposed Action as described in Section 2.2. Through the screening process, VA determined this alternative to be the only reasonable action alternative that would meet all of VA's screening criteria while achieving the purpose of and need for the Proposed Action.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented. The CAVHCS-East Campus would continue to purchase all of its required electricity from the UBT. No additional renewable PV energy sources would be installed on the property. Under this scenario, the CAVHCS-East Campus would not contribute to VA's ability to meet the requirements set forth in EO 13423, EO 13514, the EISA, and the Energy Policy Act of 2005.

While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, this alternative was retained to provide a comparative baseline against which to analyze the effects of the

Proposed Action, as required under the CEQ Regulations (40 CFR 1502.14). The No Action Alternative reflects the *status quo* and serves as a benchmark against which the effects of the Proposed Action can be evaluated.

2.3.3 Alternatives Eliminated from Detailed Consideration

As described in Section 2.3.1, VA eliminated other potential onsite PV locations through the screening process. Each of the initially considered locations and, with the exception of the location retained for further analysis in this EA, failed to meet one or more of the required screening criteria. As such, these other alternatives were eliminated from further consideration. This included eliminating other forms of renewable energy generation; onsite locations currently proposed for incompatible future construction; areas where shading from existing structures would limit solar exposure of the PV system; and on existing rooftops where the proposed PV project would conflict with existing or proposed infrastructure, impact the aesthetics of the historic buildings onsite, and/or be incompatible with the engineering capabilities of older rooftops. Cost was also a factor in eliminating carport-style PV arrays in parking lots from consideration, which likely would have required multiple smaller arrays to meet the needs of VA.

The installation of a solar thermal system was also considered in the feasibility study, but this alternative was later dismissed. With solar thermal systems, solar heat energy is captured and used primarily for heating water or other resources. This is different from PV systems, which convert solar radiation directly to electricity. The feasibility study concluded that CAVHCS-East Campus did not have the proper amount of land area or rooftop space for a solar thermal system. In addition, since the campus does not meter its hot water usage, an adequate assessment of solar thermal systems could not be made without accurate usage data.

VA also considered construction and operation of a Combined Heat and Power facility. However, this option was dismissed from feasibility for financial reasons, as the price of electricity in the region is currently significantly lower than the cost of natural gas.

SECTION 3: ENVIRONMENTAL IMPACT ANALYSIS

3.1 Introduction

This section provides appropriate environmental, cultural, and socioeconomic baseline information, and identifies and evaluates the direct, indirect, and cumulative environmental and socioeconomic changes likely to result from the implementation of the Preferred Action Alternative (i.e., Proposed Action) and the No Action Alternative at the CAVHCS-East Campus. Appendix A presents relevant NEPA process (agency and tribal) consultation documentation; Appendix B presents VA's standard environmental checklists for the Preferred Action Alternative; Appendix C includes the public notices and substantive public comments associated with this NEPA process; Appendix D presents construction-phase air emissions calculations; and Appendix E presents the draft FONSI.

In compliance with NEPA and CEQ Regulations, the description of the affected environment focuses on those resources and conditions potentially subject to effects. VA, as encouraged by the CEQ Regulations, endeavors to keep NEPA analyses as concise and focused as possible. This is in accord with CEQ Regulations at 40 CFR Part 1500.1(b) and 1500.4(b): "…NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail…prepare analytic rather than encyclopedic analyses."

3.2 Resources Analyzed

In conducting this analysis, qualified subject matter experts (SME) reviewed the potential direct, indirect, and cumulative effects of the Proposed Action and the No Action Alternative relative to each technical resource area. The SMEs carefully analyzed and considered the existing conditions of each technical resource area within the Proposed Action's region of influence (ROI). The ROI for this EA includes a portion of the CAVHCS-East Campus and the immediately adjoining areas within 500 feet of the proposed PV system location. Through this analysis, it was determined that, for several technical resource areas, no adverse effects would occur; these technical resource areas were dismissed from in-depth analysis within this EA (see Table 1). Table 1 presents the technical resource areas that are dismissed from further analysis in this EA, those that are fully analyzed, and the rationale for dismissing certain technical resource areas. Section 3.3 identifies and discusses those technical resource areas that are retained for further analysis.

Resource information for this EA was obtained through the review of existing environmental documents for the CAVHCS-East Campus and data provided through the IICEP process. Publicly available data, such as historical maps and aerial photographs, as well as regulatory agency data such as National Wetland Inventory maps, Federal Emergency Management Agency (FEMA) floodplain maps, and state- and federally registered historic property databases, were also reviewed. The data review was supplemented with a 1-day onsite visit on March 4, 2019, to obtain site-specific data and take photographs of the project location and surrounding areas. For the purposes of this EA, no in-depth studies or detailed field investigations were conducted onsite to determine the extent of resources.

3.3 Resources Considered

As shown in Table 1, technical resource areas retained for further analysis include air quality/GHGs, cultural resources, solid and hazardous waste, utilities, and cumulative effects. The following subsections provide a concise summary of the current affected environment within the CAVHCS-East Campus ROI for each of these resource areas, as well as an analysis of the potential effects to each

resource area from implementation of the No Action Alternative and the Proposed Action (Preferred Action Alternative).

Table 1. Technical Resource Areas Assessed in the Environmental Assessment

Technical Resource Area	Dismissed?	Rationale
Aesthetics	Yes	There are no aesthetically sensitive locations within the viewshed of the site. The scale and massing of the PV system would be consistent with onsite buildings and the general developed campus setting and are not expected to generate glare beyond that produced by existing onsite infrastructure and resources (e.g., windshields of parked cars). The PV system would be noticeable but would have a negligible impact on the viewshed. During construction of the PV system, the visual and aesthetic characteristics of areas undergoing development would be temporarily altered by the use of construction equipment, and the delivery and stockpiling of construction materials.
Air Quality and Greenhouse Gases (GHGs)	No	Macon County has been designated to be within full attainment of the USEPA's National Ambient Air Quality Standard (NAAQS). Only short-term, *de minimis* construction emissions would occur. These would be controlled through standard VA construction BMPs. Additional short-term, *de minimis* GHG emissions would result from vegetation clearing at the proposed site. A net, long-term reduction in fossil-fuel burning, electricity-generating facilities in the region would occur, resulting in a long-term positive effect. No significant adverse effects are anticipated.
Biological Resources (vegetation, wildlife, and threatened and endangered species)	Yes	The Proposed Action would be constructed on previously disturbed sites (i.e., a landscaped lawn area) and would not result in the removal of any habitat or undisturbed land. During construction, staging would take place within an existing paved parking lot. Noise from construction would be consistent with typical operational and maintenance activities at the campus and is not expected to disrupt wildlife. Any urban wildlife species would likely relocate upon initiation of the noise, and this impact would be temporary and less-than-significant. No potential adverse effects to known significant vegetation or wildlife resources would occur; therefore, this topic has been eliminated from further discussion within this EA. The USFWS has concurred with VA's findings that no federal or state threatened or endangered species would be affected by the Proposed Action (see Appendix A).
Community Services	Yes	Only one new employee, trained in the maintenance of PV systems, may be hired as a result of the Proposed Action. No noticeable increase in population would occur as a result of the Proposed Action; therefore, there would be no increased demand for community services (e.g., emergency, fire, and police services; schools, libraries, churches).
Cultural Resources	No	The Tuskegee Veterans Administration (VA) Hospital was constructed in 1923 after the Tuskegee Institute agreed to donate 300 acres to the government to build the proposed hospital. The Tuskegee VA Hospital was the first VA hospital in the nation to be administered by an all African American medical staff. In 1992, the facility (then known as the Tuskegee Veterans Affairs Medical Center), was added to the Alabama Register of Landmarks and Heritage. In 2012, the CAVHCS-East Campus was designated an historic district in the National Register of Historic Places (NRHP). Historical and cultural resources are further discussed within this EA.

Table 1. Technical Resource Areas Assessed in the Environmental Assessment

Technical Resource Area	Dismissed?	Rationale
Geology, Topography, and Soils	Yes	The PV arrays would result in the temporary clearing of topsoil and grading of soil in a previously disturbed landscaped area. These two areas would be a combined 3.2 acres in size. Following installation of the PV arrays, the ground surface would be replanted or reseeded with low-growth vegetation. The project would also include the installation of underground electrical lines located within a 4-inch duct bank that would extend approximately 500 feet from PV sub-array #1 to a pad-mounted switch near Building 69. An additional 530 feet of underground electrical lines would be installed between PV sub-arrays #1 and #2 to connect the two arrays. After the trenches, expected to measure approximately 5 feet in width and 5 feet in depth, are excavated and the duct bank installed, they would be backfilled with soil and gravel, and the ground surface would be restored to pre-disturbance conditions. The proposed project area includes at least one previously identified sinkhole in the area of PV sub-array #1. The area of the sinkhole is linear, with a length of approximately 200 feet and a width of approximately 20 feet. The sinkhole was identified by a geophysical survey and is believed to have been caused by the removal of an obsolete utility line and subsequent backfill. The sinkhole would be remediated using a 1:1 mixture of sand and 1-inch-diameter gravel and subsequently compacted. This Proposed Action has the potential for minor, temporary adverse effects to soil and local topography, but with the long-term net benefit of eliminating hazards associated with the sinkhole. During construction, staging is expected to take place within a section of an existing paved parking lot. Operation of the PV system would have no significant effects to geology or soil resources. Overall, no adverse impacts are anticipated for geography, topography, and soils.
Groundwater	Yes	The Proposed Action does not necessitate changes in site hydrology; therefore, groundwater is not anticipated to be affected by the Proposed Action.
Land Use	Yes	Under the Proposed Action, an approximately 3-acre area of land would be altered from an open grass lawn area to an area occupied by solar PV arrays, associated electrical infrastructure, and a chain-link fence. Since this area of the campus is currently unused, the change in land use is considered minimal.
Noise	Yes	The construction and installation activities would require use of heavy equipment that would generate short-term increases in noise. While noise would be audible to hospital staff and patients, it would not be extensive. Any increase in noise would be limited to the VA campus and would not be expected to disturb offsite receptors, given the rural setting and the size of the campus. Contractors would limit construction and installation of the PV system to occur primarily during normal weekday business hours. Noise effects during construction would be minimized through routine BMPs, including scheduling construction to avoid objectionable time periods and utilizing construction equipment noise control features such as exhaust mufflers and engine enclosure panels on construction equipment. There would be no sound from the operation of the PV system, and there would be no long-term changes in the noise environment. The Proposed Action is not expected to result in any appreciable changes in the noise environment. Noise levels in the project area would not exceed standards as determined by the federal, state, and/or local government.
Socioeconomics (economy, population, housing, employment, Protection of Children, and Environmental Justice)	Yes	Socioeconomics is defined as the basic attributes and resources associated with the human environment, particularly population and economic activity. The Proposed Action is not expected to result in any appreciable effects to the local or regional socioeconomic environment. The Proposed Action would have minor beneficial economic effects associated with temporary employment of approximately 20 construction personnel, transportation of goods and materials to the construction sites, and the long-term reduction in electricity costs for VA. There would be no permanent change in sales volume, income, employment, or population as a result of the Proposed Action. There would be no effects on environmental justice or the protection of children, as the Proposed Action would not result in disproportionate adverse environmental or health effects on low-income or minority populations or children. As such, socioeconomic impacts would be negligible.

Table 1. Technical Resource Areas Assessed in the Environmental Assessment

Technical Resource Area	Dismissed?	Rationale
Solid and Hazardous Waste	No	Potential adverse effects resulting from the construction, operation, and decommissioning of the PV system at the end of its useful life could occur. These issues are discussed in this EA.
Surface Water Resources (watershed, rivers, lakes, and coastal zones)	No	There are no surface water bodies on the CAVHCS-East Campus. However, a drainage swale is located between the two PV arrays. The swale is located approximately 90 feet south of proposed PV sub-array #1 and approximately 65 feet north of sub-array #2. This swale drains offsite to an ephemeral stream as mapped by the U.S. Geological Survey (USGS). The ephemeral stream drains to an unnamed tributary to Chewacla Creek. Potential impacts to surface water resources (i.e. stormwater and down gradient streams) resulting from the construction of the PV system are addressed in this EA.
Transportation and Parking	No	During construction, one of the onsite parking lots would be used as a construction staging/laydown area. The preferred location is Parking Lot N, located on Hospital Road near Buildings 44 and 69. The alternate location is Parking Lot J near Building 129. The alternate location might result in short-term, minor impacts to parking and onsite traffic. No traffic or parking impacts would occur during the operation of the Proposed Action. These issues are discussed in this EA.
Utilities	No	Utilities are discussed further in this EA, as the Proposed Action would have a long-term positive effect on utilities in the area.
Wetlands and Floodplains	Yes	The operation and maintenance of the PV system would have no direct effect on 100-year floodplains, as no FEMA-mapped floodplains are located at the CAVHCS-East Campus. The Proposed Action would be constructed on existing upland areas. As a result, there would be no displacement of wetlands or construction within floodplains.
Cumulative Effects	No	Analysis required per CEQ Regulations.

3.4 Air Quality and Greenhouse Gases

USEPA Region 4 and ADEM regulate air quality in Macon County, Alabama. The Clean Air Act (CAA) (42 USC 7401-7671q), as amended, gives USEPA the responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) that set acceptable concentration levels for seven criteria pollutants: particulate matter (less than or equal to 10 micrometers in aerodynamic size, PM_{10}), fine particulate matter (less than or equal to 2.5 micrometers in aerodynamic size, $PM_{2.5}$), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O_3), and lead. Short-term standards (1-, 8-, and 24-hour periods) have been established for pollutants that contribute to acute health effects, while long-term standards (annual averages) have been established for pollutants that contribute to chronic health effects. Additionally, the CAA, as amended in 1990, places most of the responsibility to achieve compliance with NAAQS on individual states.

Certain geographic areas, typically defined by county, that are in violation of the NAAQS are classified as *nonattainment* areas, and those in accordance with the NAAQS are classified as *attainment* areas. *Maintenance* areas are *attainment* areas that were formerly designated *nonattainment* and have implemented plans to maintain their *attainment* status. States that contain *nonattainment* areas must adopt a State Implementation Plan (SIP) that is a compilation of goals, strategies, schedules, and enforcement actions designed to lead the state into compliance with all NAAQS. ADEM does not operate any ambient air quality monitoring sites in Macon County; however, two sites are located in Montgomery County (adjacent to the west), and two are located in Russell County (adjacent to the east). Macon County is currently designated by the USEPA as a NAAQS attainment area for all criteria pollutants (USEPA 2019a).

The existing climate of the Montgomery, Alabama area is hot in the summer and cool in the winter. The warmest month is July with a monthly average maximum temperature of 81.8 degrees Fahrenheit (°F), while the coldest month is January with a monthly average minimum temperature of 46.6°F (NOAA 2019). The city receives an average annual amount of approximately 49 inches of total precipitation. Precipitation is generally evenly distributed throughout the year, with December having the highest average precipitation of 5.24 inches (NOAA 2019).

GHGs are components of the atmosphere that contribute to the greenhouse effect and global warming. Some GHGs occur naturally in the atmosphere, while others result from human activities such as the burning of fossil fuels. Federal agencies, states, and local communities address global warming by preparing GHG inventories and adopting policies that would result in a decrease of GHG emissions. There are six GHGs: carbon dioxide (CO_2), nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (USEPA 2018a). Although GHGs occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. Total U.S. emissions increased by 1.6 percent between 1990 and 2017. In 2017, total U.S. GHG emissions were 6,472 million metric tons of CO_2-equivalent (USEPA 2019b). The Earth's average surface air temperature has increased by approximately 1.5ºF in the last 100 years and is projected to increase by a minimum of 2ºF over the next 100 years (USEPA 2017).

No Action Alternative

Implementation of the No Action Alternative would result in no impact to the ambient air quality or climate. Construction of the Proposed Action would not occur, and no reduction in fossil fuel-based electricity use would be realized. Ambient air quality would remain unchanged when compared to existing conditions.

Proposed Action

Short-term minor adverse and long-term beneficial effects on air quality would be expected. The short-term minor adverse effects would be from air emissions during construction and installation of the PV system. Long-term beneficial effects would occur from indirect reductions in the use of fossil fuel-based electricity. Based on the following analysis, construction emissions would not exceed applicability thresholds, be regionally significant, or contribute to a violation of any federal, state, or local air regulation.

The General Conformity Rule requires federal agencies to determine whether their action(s) would increase emissions of criteria pollutants above pre-set threshold levels (40 CFR 93.153(b)). These *de minimis* (of minimal importance) rates vary depending on the severity of the *nonattainment* and geographic location. Since Macon County is considered in *attainment* for all criteria pollutants, the requirements of the General Conformity Rule are not applicable. However, the total direct and indirect emissions associated with the construction or operation of the PV system would not exceed the applicability threshold of 100 tons per year (tpy) for any criteria pollutant as demonstrated in Table 2. Appendix D provides a detailed breakdown of estimated construction emissions shown in Table 2.

Table 2. Proposed Action Emissions

Activity	Annual Emissions (tpy)					
	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$
Construction	1.5	1.4	0.2	<0.01	1.9	0.2
Operation	*<none>*					

CO – carbon monoxide; NO_x – nitrogen oxides; PM_{10} – particulate matter less than or equal to 10 micrometers in aerodynamic size; $PM_{2.5}$ – particulate matter less than or equal to 2.5 micrometers in aerodynamic size; SO_X – sulfur oxides; tpy – tons per year; VOC – volatile organic compound.

The Proposed Action would not include any new stationary sources of air emissions. No air permits to construct or operate the Proposed Action would be required. VA and its contractors would comply with all applicable air pollution control regulations. During construction, reasonable measures would be implemented to prevent unnecessary amounts of particulate matter from becoming airborne. Such precautions would include:

- Use of water for control of dust during construction operations; and
- Covering open equipment used for conveying or transporting material likely to create objectionable air pollution when airborne.

The Proposed Action would result in a long-term minor reduction in the use of fossil fuel-based electricity and associated GHG emissions. Although minor GHG emissions would be associated with the manufacturing, transportation, and construction processes, operation of the Proposed Action would reduce the annual amount of CO_2 released by approximately 1,389 tpy in the long term (Table 3). This is equivalent to annual GHG emissions from 268 passenger vehicles, or the annual consumption of 2,917 barrels of oil or 141,796 gallons of gasoline (USEPA 2018b). Over the anticipated 25-year lifetime of the PV system, the Proposed Action would represent an 34,725-ton reduction in CO_2 emissions, or the equivalent of 72,925 barrels of oil.

Table 3. Long-Term Reduction in CO_2 Equivalents from the Proposed Action

PV System	Number of Sites	System Size (kilowatts)	Estimated Annual Power Production (kilowatt-hours)	Carbon Dioxide (CO_2) Equivalents (tpy [metric tpy])
Ground-mounted	2	900	1,782,000	1,389 (1,260)

Source: USEPA 2018b.

3.4.1 Cultural Resources

In this EA, impacts to historic properties are analyzed in terms of type, duration, and intensity, which is consistent with the CEQ regulations for implementing the NEPA. These impact analyses are intended, however, to comply with the requirements of both the NEPA and Section 106 of the NHPA (Section 106). In accordance with the Advisory Council on Historic Preservation's regulations implementing Section 106 (36 CFR Part 800, Protection of Historic Properties), impacts to historic structures, cultural landscapes, and archeological resources were identified and evaluated by: (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that are either listed in or eligible to be listed in the NRHP; (3) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the NRHP; and (4) considering ways to avoid, minimize, or mitigate adverse effects.

Under the Advisory Council on Historic Preservation's regulations, a determination of either adverse effect or no adverse effect must be made for affected NRHP-eligible resources. An adverse effect

occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the NRHP (e.g., diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects caused by the preferred alternative that would occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5, Assessment of Adverse Effects). A determination of no adverse effect means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the NRHP.

Area of Potential Effects

The Area of Potential Effects (APE) for the proposed PV system with respect to archeological resources is limited to areas of ground disturbance for the project. The APE with respect to above-ground resources has been determined to be a maximum of 500 feet beyond the project limits.

No Action Alternative

Under the No Action Alternative, no construction would take place. There would be no effects to cultural resources under this alternative. Therefore, no direct, indirect, or cumulative impacts to historic structures or archeology would occur.

Proposed Action

Efforts to seek information regarding historic properties included a review of the Alabama State Register, the NRHP, historic and current United States Geological Survey (USGS) maps and aerial maps, and a site reconnaissance. The Tuskegee Veterans Administration Hospital was completed in 1923 after the Tuskegee Institute agreed to donate 300 acres to the government to build the hospital. The Tuskegee VA Hospital was the first VA hospital in the nation to be administered by an all African American medical staff. In 1992, the facility (then known as the Tuskegee Veterans Affairs Medical Center), was added to the Alabama Register of Landmarks and Heritage. In 2012, the CAVHCS-East Campus was designated a NRHP historic district named the Tuskegee Veterans Administration Hospital as part of the United States Second Generation Veterans Hospitals Multiple Property Submission (Spurlock et al. 2011).

The proposed PV system would be installed on previously disturbed ground. At least part of the ground was previously utilized as a golf course, and the area was graded at the time of the construction of the facility as well as during subsequent landscaping. Carefully graded and terraced areas are evident at the site of the parking area and basketball court. The linear arrangement of trees appears to be evidence of the previous golf course. A linear "sinkhole" within the proposed PV system location has been identified as the location of a previous utility line running through the area. Therefore, no direct impacts to archeology would occur. In terms of Section 106, there would be a finding of No Adverse Effect to archaeological resources.

Although the PV system would be visible from some of the NRHP-listed buildings within the historic district, the proposed location is at the far western edge of the campus and would only be partially visible from two or three NHRP-listed buildings at distances of 200 feet and greater. The proposed PV system would be most visible from the western façade of Building 69, but visibility would be very limited from Buildings 69, 92, and 44. Of these, Buildings 44, 68, and 69 are contributing resources while Building 92 is a non-contributing resource to the historic district. Visual impacts from the Proposed Action would be indirect and minor, leading to a finding of No Adverse Effect in terms of Section 106.

VA has submitted a Section 106 Project Review Consultation Form to the Alabama SHPO on March 14, 2019. VA will continue to consult with the SHPO until concurrence is received from that office. Since VA has committed to working with the SHPO to receive their concurrence on the Proposed Action, no adverse effects are anticipated.

3.4.2 Solid and Hazardous Waste

ADEM administers Alabama's hazardous and solid waste programs and enforces the hazardous and non-hazardous waste management rules. Hazardous waste activities and solid waste management activities must comply with all applicable federal regulations under 40 CFR Parts 260-268, 273, and 279 and 29 CFR Part 1910.

The CAVHCS-East Campus is located within USEPA Region 4 and is a very small quantity generator (VSQG) of hazardous waste (USEPA Identification #ALR000010983). This designation indicates that the facility generates less than 220 pounds (approximately 25 to 30 gallons) of hazardous waste and/or less than 2.2 pounds (approximately 1 quart) of extremely hazardous waste each calendar month. Solid and hazardous waste generated at the CAVHCS-East Campus may include small amounts pharmaceutical waste, waste paints, used oil, waste fuel, spent solvents, food wastes, and general refuse. Regulated medical wastes (biohazardous wastes) and universal wastes are also generated.

No Action

Under the No Action Alternative, the CAVHCS-East Campus would continue its current operations and would generate the same types and quantities of hazardous and non-hazardous wastes. Wastes would continue to be collected and transported for offsite disposal or recycling in accordance with federal, state, and local regulations. No changes in existing waste streams or adverse effects would occur.

Proposed Action

The Proposed Action would result in short-term, less-than-significant, adverse impacts due to the increased presence and use of construction-related hazardous and toxic materials and wastes. During construction, a small increase in construction vehicle traffic would increase the likelihood for release of vehicle operating fluids (e.g., oil, diesel, gasoline, antifreeze, etc.) and maintenance materials. Maintenance activities over the long-term could wash lubricants, etc. from the PV system and into the soil or onsite surface water drainage system. Implementation of standard construction BMPs would serve to ensure this impact is minimized.

During operation, in the event of severe damage to the PV system, a small amount of hazardous material might be released to the environment. PV systems typically contain heavy metals such as lead (solder), cadmium, and selenium. These materials are a part of any PV array and are only present in small quantities. The 2,968 total crystalline PV system modules (panels) proposed for installation at the CAVHCS-East Campus would contain silicon wafers. Silicon dust could pose respiratory/inhalation issues. The Occupational Safety and Health Administration (OSHA) has set exposure limits to keep exposure risks to personnel at a minimum and recommends the use of masks for potentially exposed personnel (Mulvaney 2013). As the potential for contamination from these materials is minimal and would only occur during catastrophic events, this is considered a long-term, less-than-significant, adverse impact. During operation, VA would conduct ongoing and regular maintenance of the PV system. Following any catastrophic event, VA would repair any damage to the PV system and rapidly remediate any minor releases in accordance with federal, state, and local requirements. No batteries or generators are proposed for storage or continuation of PV system power.

At the end of its useful life (estimated to be 25 years), the PV system would be decommissioned. If waste PV panels are sent to a municipal waste incinerator, the heavy metals would gasify and could be released to the atmosphere. If the waste PV system is sent to a municipal solid waste landfill for disposal, it has the potential to leach heavy metals into the groundwater (Markvart and Castaner 2003). To avoid such adverse effects, VA would recycle or dispose of the waste PV system in compliance with all existing federal, state, and local regulations governing the characterization and disposal of waste; therefore, no significant adverse effects associated with the disposal of the PV system are expected.

Recent developments in the PV system recycling process have allowed PV systems using recycled silicon wafers to reach efficiencies equivalent to systems using new wafers. By breaking down the original module and removing the metal frames and glass plate, the solar cell array is left between a layer of resin and a back film. The resin may be removed by immersing the cells in a bath of fluidized sand at a temperature of over 840°F. Approximately 80 percent of the wafers remain mechanically intact after this process. Etching away the various additional coatings added to the wafer generates a new solar cell (Weadock 2011). While the recycling process is labor intensive, it allows reuse of the silicon wafers, ultimately benefitting the entire industry. If feasible, VA would attempt to recycle the proposed PV system during the decommission phase at the end of its useful life.

The Proposed Action would not result in a substantial increase in the generation of solid or hazardous substances or wastes, increase the exposure of persons to hazardous or toxic substances, increase the presence of hazardous or toxic materials in the environment, or place substantial restrictions on property use due to hazardous waste, materials, or site remediation.

3.4.3 Water Resources

The National Pollutant Discharge Elimination System (NPDES) Permit Program was created by Section 402 of the 1972 Federal Clean Water Act. The Clean Water Act and Federal regulations require construction site operators to obtain NPDES permit coverage for regulated land disturbances and associated discharges of stormwater runoff to state waters.

ADEM has been granted authority from the USEPA to administer the NPDES program in Alabama. Effective April 1, 2011, ADEM established General NPDES Permit No. ALR100000 for discharges associated with regulated construction activity that result in land disturbance equal to or greater than 1 acre. The General NPDES Permit No. ALR100000 contains specific mandates to minimize impacts to stormwater, including requirements related to erosion and sediment control, soil stabilization, and pollution prevention measures, as well as training and inspection requirements. ADEM's NPDES regulations also enforce a 25-foot natural riparian buffer around surface waters, which includes the existing drainage swale onsite.

Section 438 of the EISA establishes strict stormwater runoff requirements for federal development and redevelopment projects with a footprint that exceeds 5,000 square feet. The intent of Section 438 is to require federal agencies to develop and redevelop applicable facilities in a manner that maintains or restores stormwater runoff to the maximum extent technically feasible using a combination of site planning, design, construction, and maintenance strategies. The goal of EISA is to maintain or restore the pre-development site hydrology during the development or redevelopment process.

USEPA's "*Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*" (EPA 841-B-09-001) dated December 2009, provides guidance on achieving the objectives of Section 438 of EISA. Specifically, it includes various approaches to design, construct, and maintain stormwater management practices that manage rainfall onsite, and prevent the offsite discharge of precipitation from all rainfall events

less than or equal to the 95th percentile rainfall event[1] as much as possible using a variety of green infrastructure/low impact development (GI/LID) infrastructure tools.

No Action Alternative

Under the No Action Alternative, no construction would take place. There would be no effects to surface water resources under this alternative. Therefore, no direct, indirect, or cumulative impacts to water resources.

Proposed Action

Under the Proposed Action, land disturbance of greater than 1 acre would occur. Therefore, Ameresco would be required to seek coverage under General NPDES Permit No. ALR100000. A Notice of Intent (NOI) would be completed and submitted to ADEM in accordance with the permit requirements prior to any work beginning.

Under the requirements of the NPDES Permit, Ameresco must ensure that the construction contractor implements and maintains effective erosion and sediment controls and prepare a Construction Best Management Practices Plan (CBMPP) certified by a Qualified Credentialed Professional (QCP). A QCP or Qualified Credentialed Inspector (QCI) must conduct regular inspections of regulated construction activities to ensure effective erosion and sediment controls are being maintained. In certain circumstances, the QCI or QCP must also monitor construction site discharges for turbidity.

In order to comply with the requirements of the NPDES Permit and provide protection to the onsite drainage swale, BMPs would be implemented during construction to reduce stormwater and sediment runoff to the extent practicable in accordance with the NPDES permit requirements. Such BMPs may include:

- Installing appropriate silt fencing and/or other appropriate erosion-control measures around the perimeter of the construction area footprint(s) prior to construction, notably on downslope areas.
- Using straw bales as and where necessary to further minimize offsite erosion potential.
- Seeding the unpaved disturbed area with native vegetation immediately upon the completion of construction.

Any spills occurring during construction would be managed using appropriate pollution prevention control measures.

During construction activities, every effort would be made by the contractor to maintain a 25-foot buffer zone along the drainage ditch to the maximum extent practicable. This buffer zone would be measured from the top of stream bank and the disturbed construction area. In accordance with ADEM requirements, if encroachment into the buffer zone is required, it must be supplemented by additional erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 25-foot undisturbed natural riparian buffer.

[1] The 95th percentile rainfall event represents a precipitation amount which 95 percent of all rainfall events for the period of record do not exceed.

A study by Cook and McCuen (2013) found that "if the ground cover under the panels is gravel or bare ground…the peak discharge may increase significantly with storm-water management needed. In addition, the kinetic energy of the flow that drains from the panels was found to be greater than that of the rainfall, which could cause erosion at the base of the panels." The study later went on to indicate that maintaining pre-existing vegetation beneath the panels is recommended to keep stormwater runoff at or near pre-existing conditions.

Prior to construction activities, VA, through Ameresco, would ensure that all construction and development plans take into account the requirements of EISA and the results of the Cook and McCuen study by designing the project in a manner that maintains or restores stormwater runoff to pre-disturbance conditions to the maximum extent technically feasible. The ultimate goal would be to retain onsite the runoff from the 95th percentile storm. This would include requiring the construction contractor to utilize one or more of the following GI/LID tools:

- Not allowing the use of gravel or a vegetation barrier beneath the solar PV arrays.
- Replacing any topsoil removed during construction to the extent practicable.
- Planting, promoting, and maintaining low-growth vegetation beneath the solar PV arrays.
- Installing a buffer strip just beyond the most downgradient row of panels to retain stormwater runoff and allow for greater infiltration and/or evapotranspiration rates.

In order to maintain limited plant growth beneath the panels, a combination of approaches must be considered. This includes re-planting the area with specific seed mixtures that include only low-growth vegetation; using mechanical lawn mowers and weed-trimmers where access is feasible; and performing manual weed removal periodically as needed.

Use of additional GI/LID infrastructure tools, such as those described in USEPA's Guidance Document, would also be considered pending final construction plans. These could include:

- Rain gardens, bioretention, and infiltration planters;
- Porous pavements;
- Vegetated swales and bioswales;
- Green roofs;
- Trees and tree boxes;
- Pocket wetlands; and
- Harvesting rainwater for use onsite.

Using the various BMPs described herein, the Proposed Action would result in a minor increase in impervious surface area and would in turn result in very little or no net increase in stormwater runoff.

3.4.4 Transportation and Parking

The CAVHCS-East Campus employs approximately 1,000 people and can accommodate up to 134 patients who may be visited daily by family and friends. Currently, there are at least 10 parking lots on the campus that are designated either for employees, visitors, or both.

No Action Alternative

Under the No Action Alternative, no construction would take place. There would be no effects to transportation and parking under this alternative. Therefore, no direct, indirect, or cumulative impacts to this resource would occur.

Proposed Action

Two potential locations have been identified to be used as a contractor laydown/storage area during construction of the PV system. The preferred location is Lot N, located on Hospital Road in close proximity to the proposed location for the PV system. This lot contains 61 parking spaces and 1 handicapped space. The parking lot is designated for use by the CAVHCS-East Campus Transportation Department but is largely unoccupied, typically containing only a handful of cars, buses, and a few storage trailers. Parking Lot N is located approximately 200 feet from the proposed location for the PV system, and access is available both by Hospital Road and across a grass and gravel area behind VA Police impound lot. Use of this lot would have minimal impacts to parking and on-campus traffic during construction of the Proposed Action.

The backup location for the construction laydown area is Parking Lot J, a visitor parking lot located approximately 1,500 feet east-northeast from the proposed location for the PV system. Parking Lot J is primarily used by visitors to the Community Living Center (CLC) and contains 48 parking spaces, including 4 handicapped spaces. Use of Parking Lot J would result in the temporary displacement of visitor parking at the CLC. It would also require construction equipment and materials to be transported across the site during construction, which includes narrow roadways and corners. This could result in short-term, minor adverse impacts to onsite parking and traffic.

Operation of the Proposed Action would have no impact on transportation and parking.

3.4.5 Utilities

The CAVHCS-East Campus currently receives electricity from Alabama Power through the UBT, but also operates a total of 10 stationary, diesel-powered emergency generators and 4 portable, diesel-powered emergency generators. These emergency generators are used to provide emergency power during electrical outages for critical infrastructure. During a 12-month period (January 2017 through December 2017), the CAVHCS-East Campus consumed a monthly average of 884.6 MWh, with a peak usage of 1,318.5 MWh in September 2017 and a minimum usage of 529.9 MWh in March 2017 (Ameresco 2019).

UBT owns, operates, and maintains an electrical transmission and distribution system providing service to approximately 7,300 customers in Macon County. UBT does not have any electrical generating facilities but purchases power for the customers through the Alabama Municipal Electric Authority (AMEA). The AMEA contracts with Alabama Power Company and other electricity-generating companies for a reliable source of electricity. UBT has a total of five distribution substations. Three of these substations are 46 kilovolt (kV) to 12.47kV, and the other two are 115kV to 12.47kV. The 12.47kV distribution system from these substations is used to deliver power to the customers. There is ample substation capacity available to serve additional load, and the system can be expanded at

any time if more capacity is needed (UBT 2019). During the period May 2015 through December 2017, peak electric demand of the CAVHCS-East Campus was 1,484,085 kilowatt hours (kWh) per month (July 2015) and average demand was approximately 1,041,299 kWh per month (Ameresco 2019). This equates to a consumption of approximately 12,495,585 kWh per year.

No Action Alternative

Under the No Action Alternative, the PV arrays would not be installed, and no utility impacts would occur. The CAVHCS-East Campus would continue to rely entirely on electricity provided by Alabama Power through UBT and would not produce the positive utilities effects of installing an onsite renewable energy source, as described below.

Proposed Action

The Proposed Action would result in a long-term, less-than-significant beneficial impact on local utilities by decreasing the CAVHCS-East Campus's reliance on the existing electric grid. The PV system would provide an annual electrical output of approximately 487,700 kWh. This would represent a long-term beneficial impact on local utility infrastructure and would reduce the CAVHCS-East Campus's demand on Alabama Power by approximately 4 percent per year (Ameresco 2018).

The proposed construction and operation of a PV system at the CAVHCS-East Campus would not alter its current use. No increase in demand on any utility would result from the installation of the PV system. No changes in water usage or natural gas supply are anticipated with the installation and operation of the PV system.

While not anticipated, during connection of the proposed PV system with the onsite electrical infrastructure, minor, short-term power outages may be possible during installation and connection of the PV system. However, the potential outage would only be associated with the distribution gear to which the PV arrays are being connected, and no facility-wide power outages are expected. The CAVHCS-East Campus would know more regarding potential power outages after establishing the connection points with the construction contractor.

The Proposed Action would not cause substantial population growth in the city of Tuskegee or otherwise increase utility demands as a result; therefore, the Proposed Action would have a net positive impact on the electric demand of the city and on Alabama.

3.5 Mitigation Measures

As indicated earlier, the USFWS, EPA Region 4, the ADNR, ADEM, DOT, and SHPO, as well as the County of Macon and City of Tuskegee, were consulted regarding impacts from the proposed action on various resource areas, including natural and cultural resources. Summaries of responses received thus far from the USFWS, SHPO, and USEPA may be found in Section 1.6.2; Appendix A contains a copy of each response.

Based upon the responses received to-date, the following mitigation measures are proposed:

- Based upon prior experience, if any artifacts or archaeological features are encountered during project activities, work would immediately cease and the SHPO would be contacted. VA notes, however, that as minimal ground disturbance would occur during implementation of the Proposed Action, no underground cultural resources are anticipated to be impacted during construction or operation.

- To address stormwater runoff volume and quality concerns, Ameresco and VA have revised the proposed project plans to ensure that the construction contractor replaces the topsoil beneath the PV arrays and would require reseeding the area with low-growth vegetation that would both keep the ground surface permeable while also not interfering with the PV panels' exposure to solar radiation.

3.6 Cumulative Effects

Cumulative effects, as defined by the CEQ, are, "Impacts on the environment, which result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such action" (40 CFR 1508.7). Thus, cumulative impacts are the sum of all direct and indirect impacts, both adverse and positive, that result from the Proposed Action when combined with past, present, and future actions regardless of the source. Cumulative impacts may be accrued over time and/or in conjunction with other pre-existing effects from other activities in the area (40 CFR 1508.25); therefore, pre-existing impacts and multiple smaller impacts should also be considered.

Currently, the only projects occurring at the CAVHCS-East Campus involve the interior renovations of several onsite buildings. Proposed future projects at the CAVHCS-East Campus include the excessing and/or demolition of Buildings 9, 10, 12, 13, 14, and 15, as well as repairs and renovations at Building 69. However, none of these projects has been funded for the current FY, and therefore are not likely to occur concurrently with construction of the Proposed Action.

Potential adverse cumulative impacts from current projects (i.e., interior renovations) on traffic during the construction phase of the Proposed Action, combined with the other proposed projects, would be less than significant and minimized via coordination among construction managers for all current and proposed projects to ensure easy and safe access to the CAVHCS-East Campus with minimal impact to traffic and parking. VA would carefully coordinate and synchronize all construction activities to avoid conflicts. Due to the nature of the Proposed Action and the potential future projects at the site, no significant adverse cumulative impacts would be anticipated.

Due to the nature of the Proposed Action, pressures on area utility infrastructure would be decreased, and a consequent reduction in area air emissions (i.e., from electricity production) would occur. It is important to note that, if and when any additional facilities constructed in the future come online at the CAVHCS-East Campus, electricity demand will increase. This increase in energy demand would have occurred regardless of the Proposed Action. The installation of the PV system would represent an overall decrease in fossil fuel usage upon the completion of these buildings compared to the No Action Alternative; therefore, the Proposed Action would not create significant adverse cumulative effects to air quality or utilities when combined with other future projects identified. Overall, the implementation of the Proposed Action is not expected to have a cumulative significant adverse effect to any technical area discussed in this EA.

Under the No Action Alternative as described throughout Section 3.2, no adverse impacts would occur; however, the CAVHCS-East Campus would continue to rely on power provided through the UBT. By not implementing the Proposed Action, ongoing levels of air emissions from electricity generation would continue. A reduction in this traditional power usage, or demand on the current electric grid, would not occur.

SECTION 4: REFERENCES

36 CFR, Part 60, National Register of Historic Places, National Park Service, Code of Federal Regulations.

36 CFR, Part 800, Protection of Historic Properties, National Park Service, Code of Federal Regulations (incorporating amendments effective August 5, 2004).

40 CFR Part 50. National Primary and Secondary Ambient Air Quality Standards. U.S. Environmental Protection Agency, Code of Federal Regulations.

40 CFR Part 93. Determining Conformity of Federal Actions to State or Federal Implementation Plans. U.S. Environmental Protection Agency, Code of Federal Regulations.

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USEPA. 2009. Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act" (EPA 841-B-09-001). December 2009.

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USEPA. 2018b. *Greenhouse Gas Equivalencies Calculator.* Last updated December 2018. Accessed at https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

USEPA. 2019a. *Alabama Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants*. Last updated January 31, 2019. Accessed at https://www3.epa.gov/airquality/greenbook/anayo_al.html.

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VA (Department of Veterans Affairs). 2010. NEPA Interim Guidance for Projects. September 2010. Accessed at https://www.cfm.va.gov/til/etc/NEPAGuidance.pdf.

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APPENDIX A

CONSULTATION DOCUMENTS

TA/ML
2019-TA-0580

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

RECEIVED
MAR 11 2019

March 7, 2019

Mr. Bill Pearson
Field Supervisor
U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
1208 Main Street
Daphne, AL 36526

U.S. Fish and Wildlife Service
1208-B – Daphne, Alabama 36526
Phone: 251-441-5181 Fax: 251-441-6222

No federally listed species/critical habitat are known to occur in the project area. As described, the project will have no significant impact on fish and wildlife resources. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW. We recommend use of best management practices specific to your project (See http://www.fws.gov/daphne/section7/bmp.html).

William J. Pearson, Field Supervisor — Date: MAR 20 2019 — #3

RE: Central Alabama Veterans Affairs Health Ca
Environmental Assessment for Proposed Sol

Dear Mr. Pearson,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with the Alabama Ecological Services Field Office of the U.S. Fish and Wildlife Service and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26' 42.3"N and longitude of 85° 42' 47.4"W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 488 megawatt hours (MWh) of energy, or approximately 4 percent of the CAVHCS-East Campus's current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location . All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we are preparing an EA that will evaluate the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq.*); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs' Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We seek your input into the NEPA process concerning any of the following specific environmental issues or concerns your agency may have on the potentially affected areas, as referenced above and depicted in Attachments A and B:

- Federal- or state-listed threatened or endangered species, any species proposed for such listing, or critical habitat for such species that may occur within a 1-mile radius of the proposed site.
- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues.
- Natural resource issues.
- Traffic, noise, or socioeconomic concerns.
- Air quality concerns.
- Additional environmental, cultural, land use, or socioeconomic information or concerns your agency may have with regard to the referenced sites.
- Data concerning any present or reasonably foreseeable future actions in the vicinity of the CAVHCS-East Campus that could contribute to cumulative effects.

Data that you make available will provide valuable and necessary input into the NEPA analytical process. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the EA. A list of agencies contacted as part of this NEPA process is included in Attachment C.

We respectfully ask that you respond in writing to this request within 30 days to enable us to complete this phase of the project within the scheduled timeframe. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee V. Jernigan, Jr.

Lee Jernigan

Attachment A. Maps
Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 7, 2019

Mr. Bill Pearson
Field Supervisor
U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
1208 Main Street
Daphne, AL 36526

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. Pearson,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with the Alabama Ecological Services Field Office of the U.S. Fish and Wildlife Service and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 488 megawatt hours (MWh) of energy, or approximately 4 percent of the CAVHCS-East Campus’s current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location . All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we are preparing an EA that will evaluate the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs’ Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We seek your input into the NEPA process concerning any of the following specific environmental issues or concerns your agency may have on the potentially affected areas, as referenced above and depicted in Attachments A and B:

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- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues.
- Natural resource issues.
- Traffic, noise, or socioeconomic concerns.
- Air quality concerns.
- Additional environmental, cultural, land use, or socioeconomic information or concerns your agency may have with regard to the referenced sites.
- Data concerning any present or reasonably foreseeable future actions in the vicinity of the CAVHCS-East Campus that could contribute to cumulative effects.

Data that you make available will provide valuable and necessary input into the NEPA analytical process. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the EA. A list of agencies contacted as part of this NEPA process is included in Attachment C.

We respectfully ask that you respond in writing to this request within 30 days to enable us to complete this phase of the project within the scheduled timeframe. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Maps
Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

Attachment A
Maps

Figure 1. Project Site Location Map

Figure 2. Proposed PV System Location

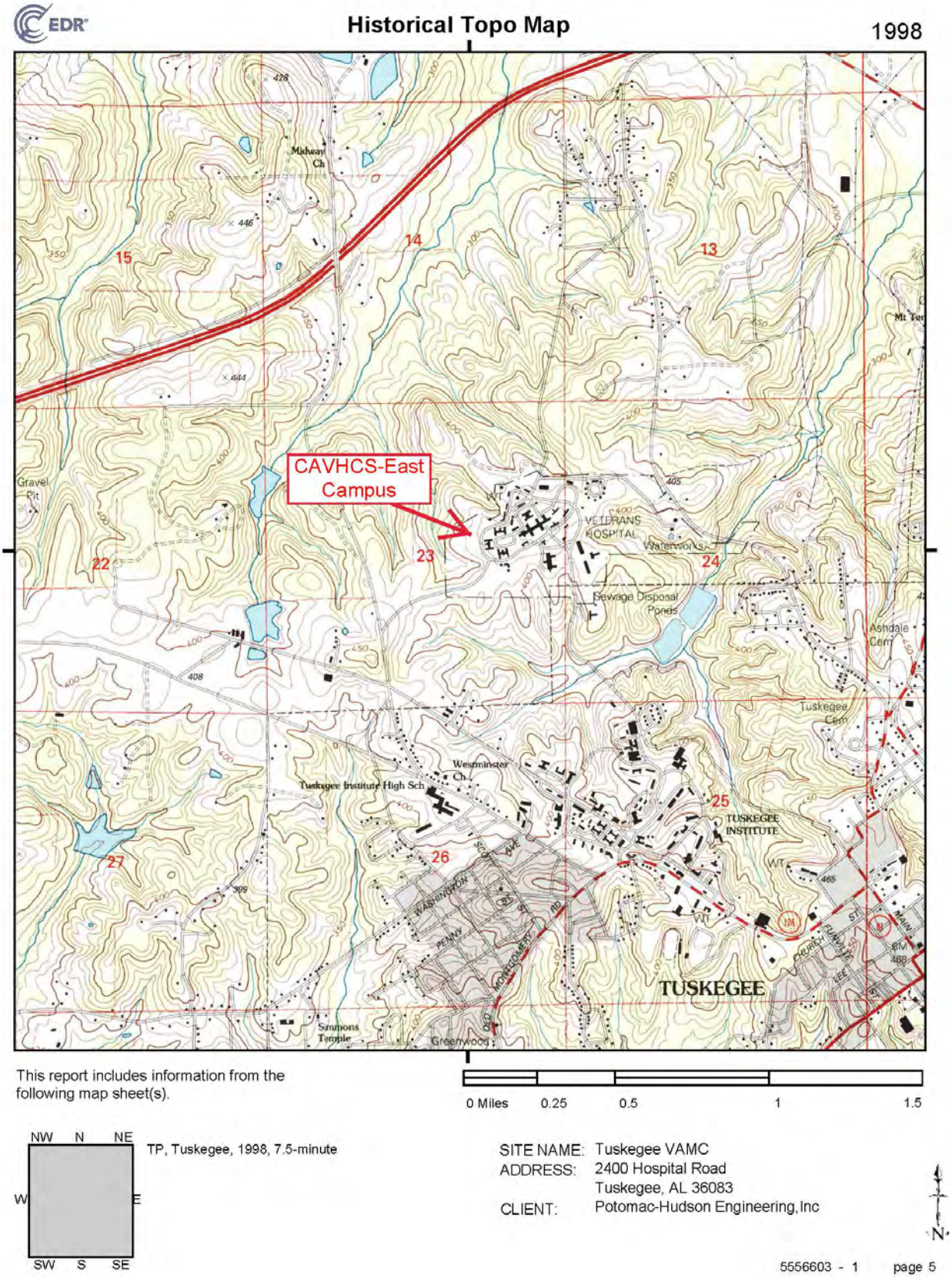

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

Figure 1. PV System Layout Details

Attachment C
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
Mr. Bill Pearson
Field Supervisor
1208 Main Street
Daphne, AL 36526

Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
468 South Perry Street
Montgomery, AL 36104

Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
P.O. Box 301463
Montgomery, AL 36130

Alabama Department of Conservation and Natural Resources
Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
64 N. Union Street
Montgomery, AL 36130

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, AL 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
Tuskegee, AL 36083

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

June 27, 2019

Mr. Bill Pearson
Field Supervisor
U.S. Fish and Wildlife Service (USFWS)
Alabama Ecological Services Field Office
1208 Main Street
Daphne, AL 36526

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. Pearson,

The U.S. Department of Veterans Affairs (VA) has prepared a Draft Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to notify the USFWS, Alabama Ecological Services Field Office, of changes to the Proposed Action that have occurred since initiation of consultation in March 2019 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by these changes. Table 1 compares elements of the original Proposed Action as described in the March 2019 scoping letter to the updated project description as presented in the Draft EA. Attachment A, Figure 2 and Attachment B, Figure 1 depict the current Proposed Action.

Table 1. Summary of Changes to the Proposed Action

Project Aspect	**Original Proposed Action (as described in March 2019 scoping letter)**	**Current Proposed Action (as described in June 2019 Draft EA)**
Number of arrays (or sub-arrays)	1	2
Number of panels	864	2,968
Total area of PV array(s)	1 acre	3.2 acres
System size	250 kilowatts	900 kilowatts
Annual output	487.7 megawatt hours	1,782 megawatt hours
Length of trenching (subsurface electrical lines)	400 feet	1,010 feet
Ground surface preparation	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system consisting of two connected PV arrays. The PV arrays, which will be approximately 3.2 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. PV sub-array #1 would be located on an approximately 1.3-acre area on the north side of the project area, while PV sub-array #2 would occupy an approximately 1.9-acre area to the south. Construction would be expected to last approximately 6 months.

The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26' 42.3"N and longitude of 85° 42' 47.4"W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 1,782 megawatt hours (MWh) of energy, or approximately 15 percent of the CAVHCS-East Campus's current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV arrays would be connected to each other via a 510-foot underground electrical line. A second buried electrical conduit, approximately 500 feet in length, would also extend from PV sub-array #1 to a pad-mounted switch adjacent to Building 69. All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we prepared a Draft EA that evaluates the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs' Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We respectfully ask that you respond in writing within 30 regarding any new resources that could be affected under the revised Proposed Action. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

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Sincerely,

Lee Jernigan

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Attachment A
Maps

Figure 1. Project Site Location Map

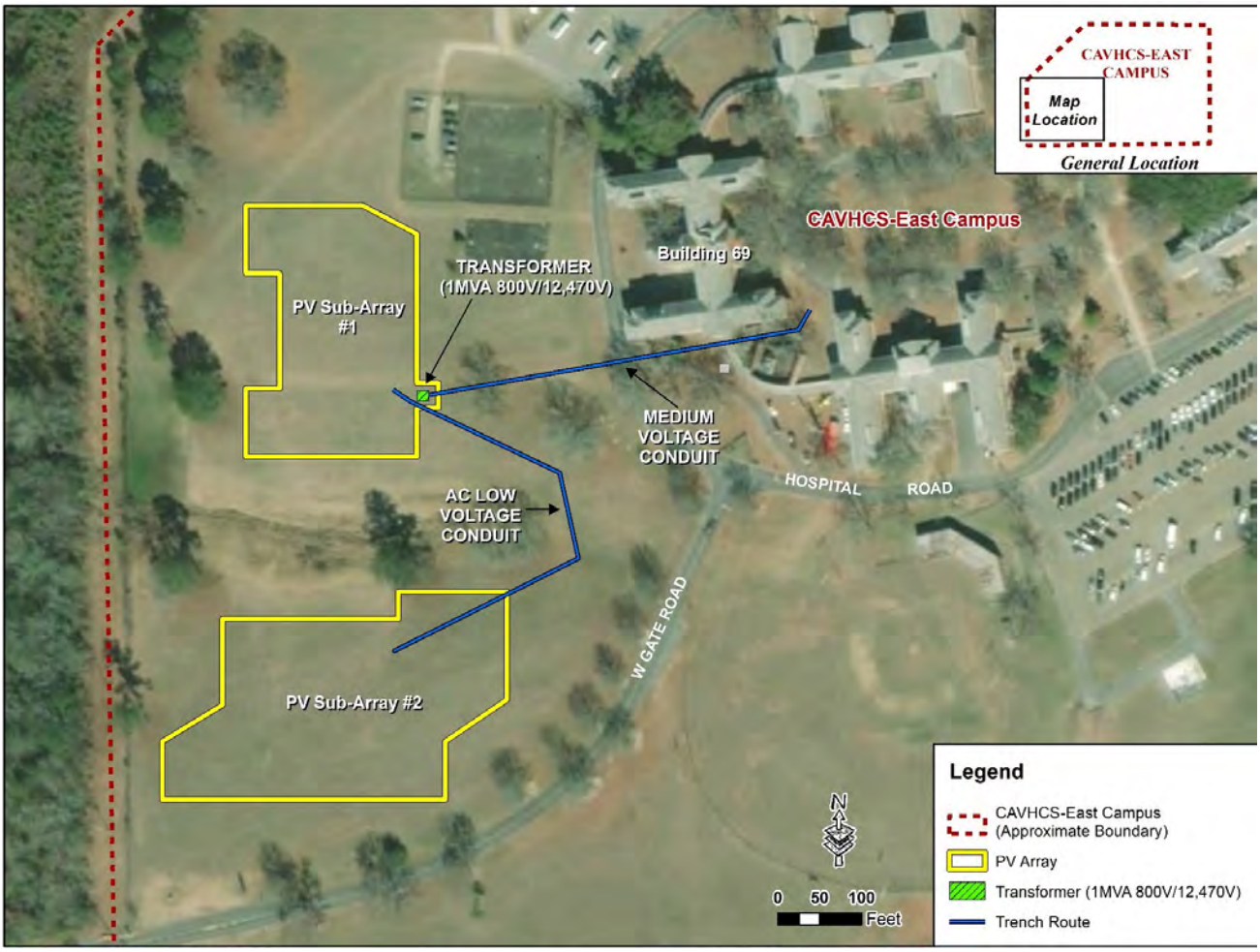

Figure 2. Proposed PV System Location

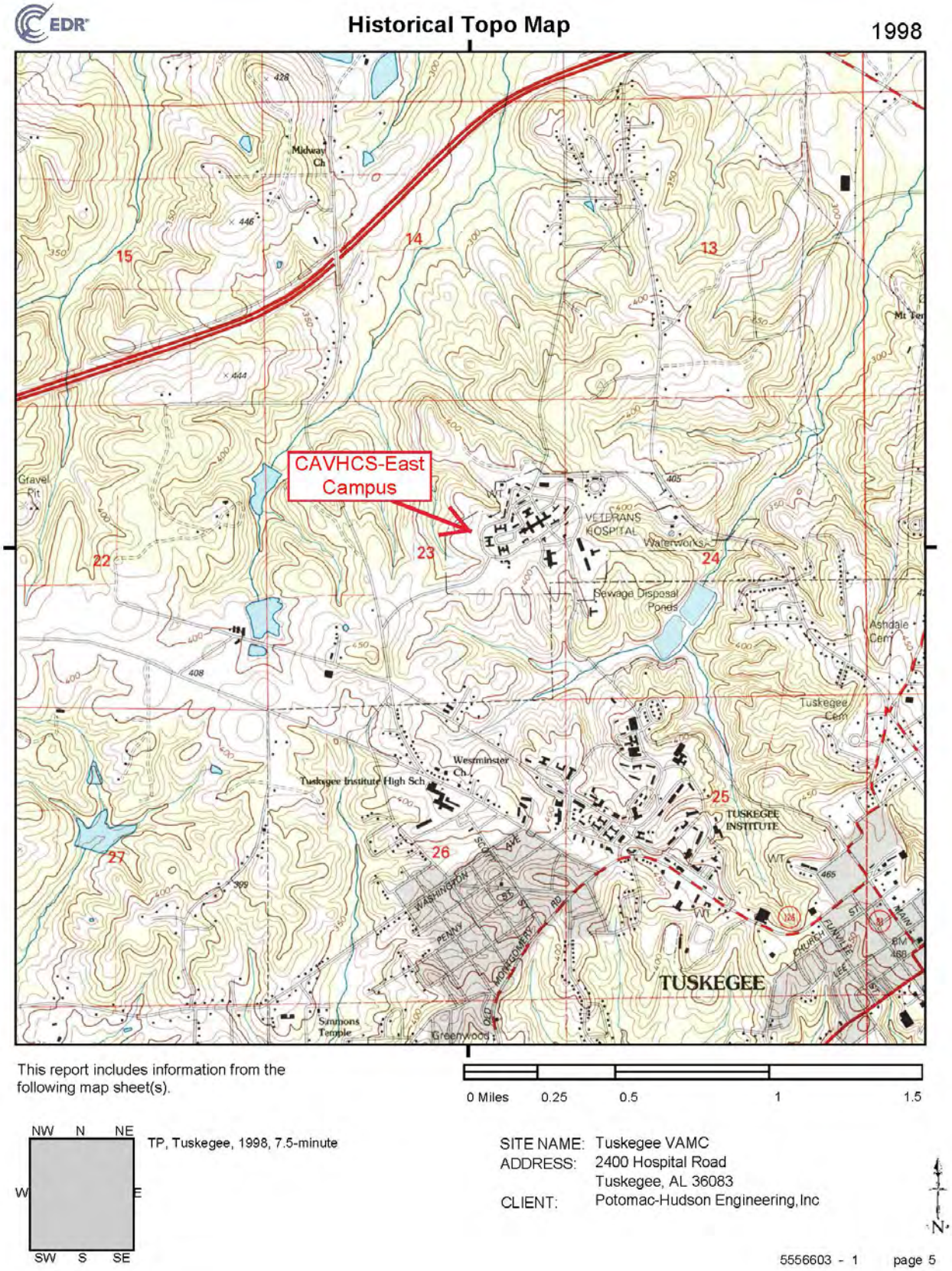

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

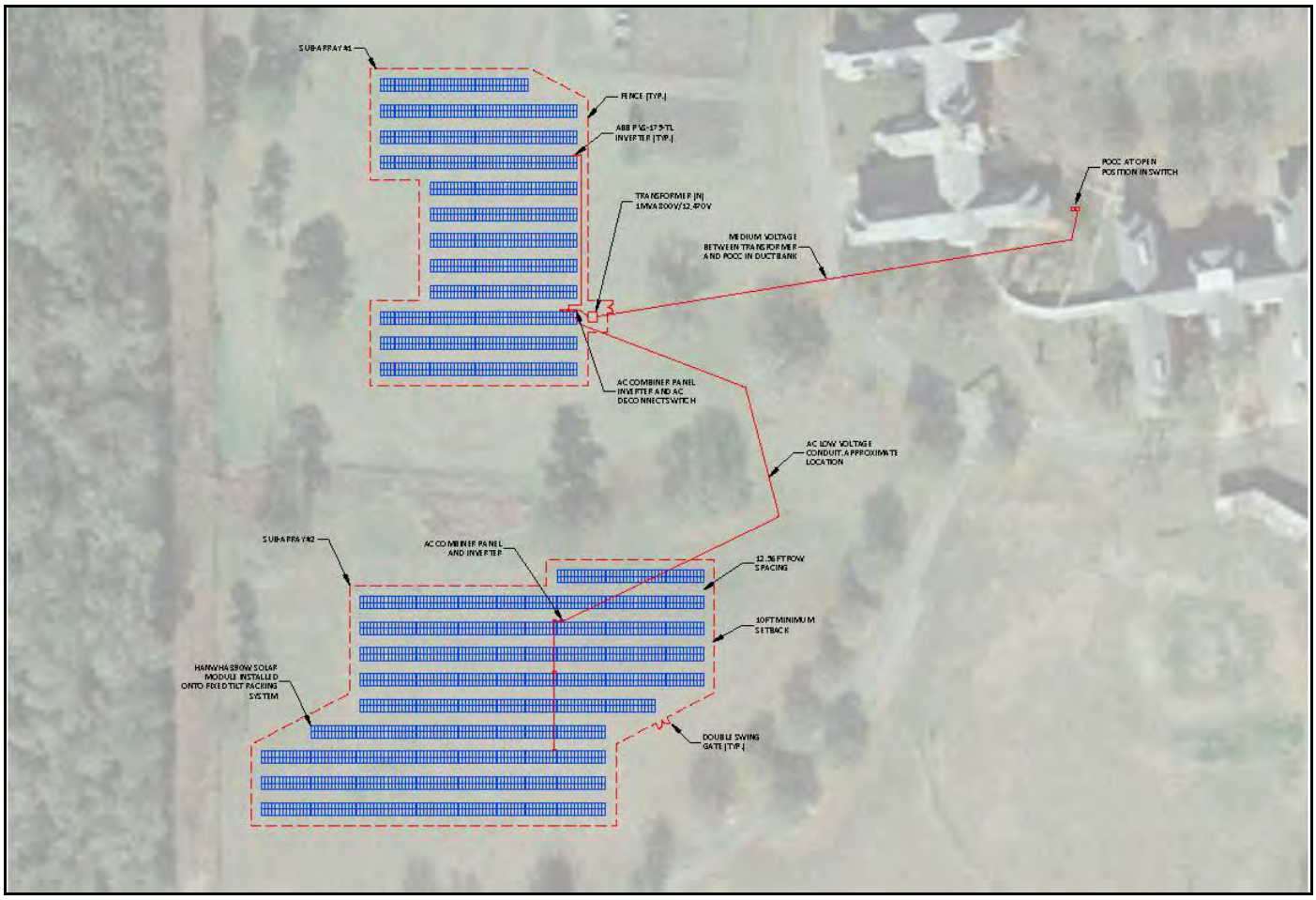

Figure 1. PV Layout Details

Attachment C
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
Mr. Bill Pearson
Field Supervisor
1208 Main Street
Daphne, AL 36526

Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
468 South Perry Street
Montgomery, AL 36104

Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
P.O. Box 301463
Montgomery, AL 36130

Alabama Department of Conservation and Natural Resources
Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
64 N. Union Street
Montgomery, AL 36130

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, AL 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
Tuskegee, AL 36083

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

From:	Mercer, Chloe
To:	Chris Rua
Cc:	lee.jernigan@va.gov; McBride, Amanda
Subject:	CAVHCS Solar PV System - AHC 2019-0670
Date:	Wednesday, April 3, 2019 14:43:09

Chris:
I am reviewing the proposed solar panels at the Central Alabama Veterans Affairs Health Care System – East Campus in Tuskegee. Additional information is required to help in the review of this work.
Please provide the following:

1. Drawings that convey the dimensions of the panels and mounts and their height off the ground (highest point).
2. Photo simulations that also convey this information and the proposed tilt of the panels.
3. Detailed description or details of the type and height of perimeter fence and explanation of any other vertical components that are part of this PV system (explain “inverter” and “panel” shown in red on Attachment B).
4. Site plan showing the location of the switchgear unit south of Building 69 and drawings that convey the dimensions of the unit and pad mount.
5. Photos of the location for the switchgear unit in the context of Building 69 and photo simulations of the unit in the context of Building 69.

Thank you.

Chloe Mercer
Federal Historic Preservation Tax Incentives Coordinator
Historic Preservation Division
Alabama Historical Commission
468 South Perry Street
Montgomery, AL
36130-0900 (US Mail)
36104 (Courier)
334/230-2669
chloe.mercer@ahc.alabama.gov
www.ahc.alabama.gov

ALABAMA HISTORICAL COMMISSION
THE STATE HISTORIC PRESERVATION OFFICE

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 6, 2019

Frank White
Program Head
Review and Compliance
Alabama Historical Commission
468 South Perry Street
Montgomery, Alabama 36104

Re: Section 106 Review for Proposed Solar Photovoltaic Systems at the Department of Veterans Affairs (VA) Central Alabama VA Health Care System (CAVHCS) – East Campus, Tuskegee, Alabama

Mr. White:

We are seeking your agency's concurrence under Section 106 of the National Historic Preservation Act (NHPA; 36 Code of Federal Regulations [CFR] Part 800) that our Proposed Action would not affect historic properties, including archaeological and historic resources, eligible for listing on the National Register of Historic Places (NRHP). Salient details are provided below.

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with the Alabama Historical Commission and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

A. Description of the Undertaking

The proposed PV system (i.e., the Proposed Action) include the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26' 42.3"N and longitude of 85° 42' 47.4"W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 488 megawatt hours (MWh) of energy, or approximately 4 percent of the CAVHCS-East Campus's current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location. All electricity produced by the proposed PV systems would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

B. Area of Potential Effects

The APE of indirect/visual effects for the proposed PV systems has been determined to be a maximum of 500 feet beyond the project limits. The APE for archaeological resources is limited to the areas of ground disturbance.

C. Description of Steps Taken to Identify Historic Properties

Efforts to seek information regarding historic properties included a review of the Alabama State Register, the National Register of Historic Places, historical and current U.S. Geological Survey (USGS) maps, historical and current aerial maps, and a site reconnaissance.

The Tuskegee Veterans Administration (VA) Hospital was completed in 1923 after the Tuskegee Institute agreed to donate 300 acres to the government to build the proposed hospital. The Tuskegee VA Hospital was the first VA hospital in the nation to be administered by an all African American medical staff. In 1992, the facility (then known as the Tuskegee Veterans Affairs Medical Center [VAMC]), was added to the Alabama Register of Landmarks and Heritage. In 2012, the CAVHCS-East Campus was designated a National Register of Historic Places (NRHP) historic district named the *Tuskegee Veterans Administration Hospital* as part of the United States Second Generation Veterans Hospitals Multiple Property Submission.

D. Effect Determination

It is the determination of the VA that the proposed PV system for the CAVHCS-East Campus would result in a finding of No Adverse Effect to historic properties. The proposed PV system would be installed on previously disturbed ground. At least part of the ground was previously utilized as a golf course and the area was graded at the time of the construction of the facility as well as during subsequent landscaping. Carefully graded and terraced areas are evident at the site of the parking area and basketball court. The linear arrangement of trees appear to be evidence of the previous golf course. A linear "sinkhole" within the proposed PV system location has been identified as the location of a previous utility line running through the area.

Although the PV system will be visible from some of the National Register listed buildings within the historic district, the proposed location is at the far western edge of the campus and will only be partially visible from two or three NHRP buildings at distances of 200 feet and greater. The proposed PV system will be most visibile from the western façade of Building 69 but visibility will be very limited from Buildings 69, 92 and 44. Of these, Buildings 44, 68 and 69 are contributing resources while Building 92 is a non-contributing resource to the historic district.

As this Proposed Action is federally funded, we are preparing an Environmental Assessment (EA) that will evaluate the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the national Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, et seq.); the Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500-1508); 38 CFR Part 26 (Environmental Effects of the Department of Veterans Affairs' Actions); as well as the VA NEPA Interim Guidance for Projects (2010).

We respectfully ask that you respond in writing to this request within 30 days in accordance with 36 CFR Part 800.3(c)(4). Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan, Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Maps
Attachment B. Renderings of the Proposed Action
Attachment C. Photographs
Attachment D. List of Agencies Contacted

Attachment A
Maps

Figure 1. Project Site Location Map

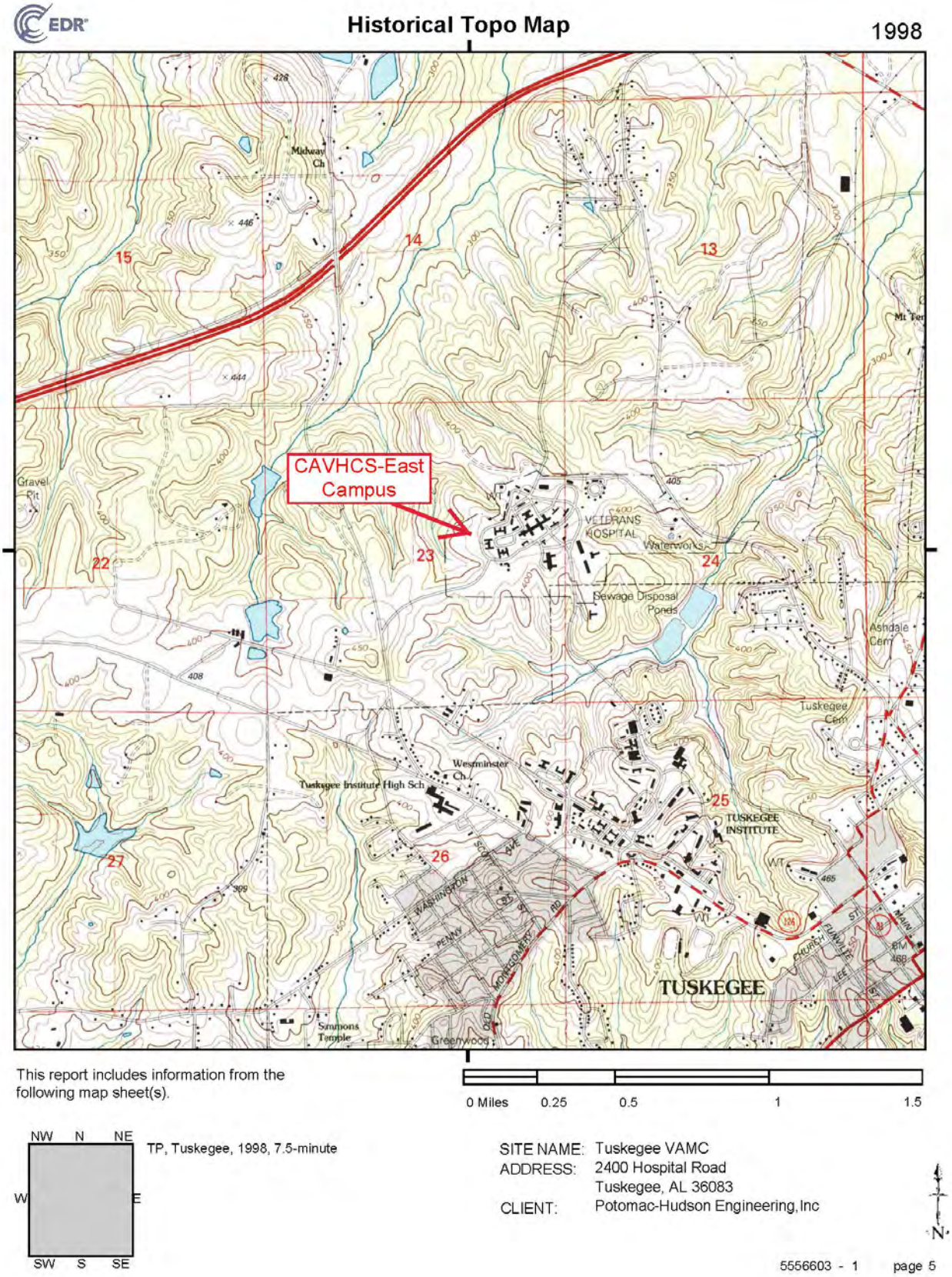

Figure 2. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Figure 3. Proposed PV System Location (APE for Archaeological Resources)

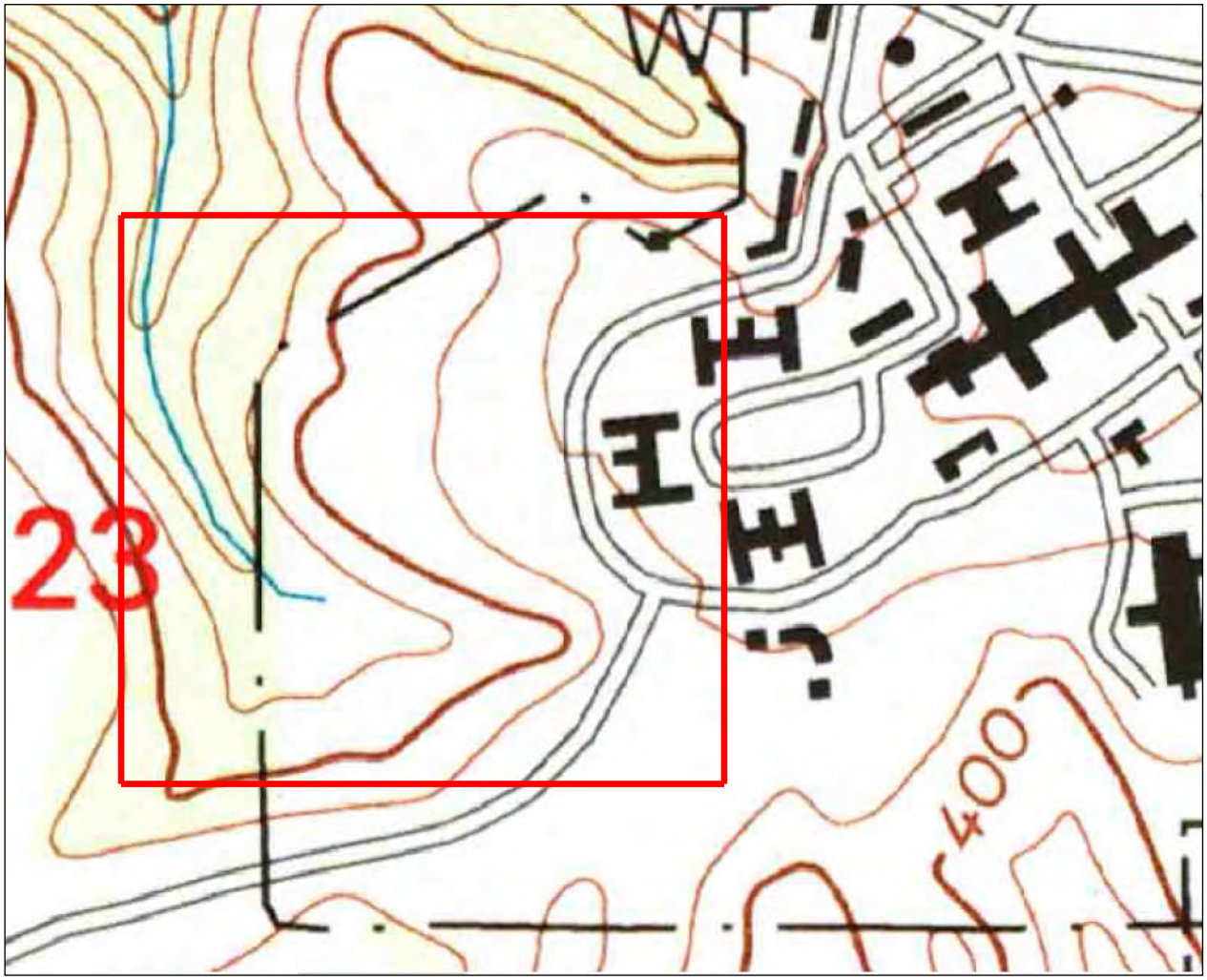

Figure 4. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998) showing APE for Historic Structures (500 Feet from Project Boundaries).

Attachment B
Approximate Location and Design of the Proposed Action

Figure 1. PV System Layout Details

Attachment C
Photographs

Photo 1: View of proposed PV location facing north.

Photo 2: View of proposed PV location facing east towards East Campus.

Photo 3: View from proposed PV location facing east towards Building 69 with Building 68 to extreme right (Building 92 is located behind wing of Building 69).

Photo 4: View from proposed PV location facing northeast towards Building 44 (beyond chain link fence) with Building 69 at right.

Photo 5: View towards proposed PV location along proposed conduit route, from Building 92.

Photo 6: View towards proposed PV location from Building 69.

Photo 7: View towards proposed PV location from Building 68.

Photo 8: View towards proposed PV location from Building 44.

Key to Photographs

Attachment D
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303-8960

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
Mr. Bill Pearson
Field Supervisor
1208 Main Street
Daphne, AL 36526

Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
468 South Perry Street
Montgomery, AL 36104

Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
P.O. Box 301463
Montgomery, AL 36130

Alabama Department of Conservation and Natural Resources
Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
64 N. Union Street
Montgomery, AL 36130

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, Alabama 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

City of Tuskegee
Mr. Bernard Houston, City Manager

101 Fonville Street
PO Box 830687
Tuskegee, Alabama 36083-0687

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

Attachment E
Project Description

The U.S. Department of Veterans Affairs (VA) is proposing the construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. No buildings would be altered or demolished as part of the proposed action. The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location. All electricity produced by the proposed PV systems would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid. The proposed PV system would be fully owned and operated by Ameresco while being leased to the VA.

ALABAMA HISTORICAL COMMISSION
STATE HISTORIC PRESERVATION OFFICE

SECTION 106 PROJECT REVIEW CONSULTATION FORM

Federal laws exist to ensure that federal agencies or their designated applicants carefully consider historic preservation in federally funded, licensed, or permitted projects. Section 106 of the National Historic Preservation Act of 1966, as amended directs this review. http://www.achp.gov/106summary.html. At a minimum, submission of this completed form and attachments constitutes a request for review by the Alabama Historical Commission, which is the Alabama State Historic Preservation Office (SHPO). **The responsibility for preparing documentation, including the identification of historic properties and the assessment of potential effects resulting from the project, rests with the federal or state agency, or its designated applicant.** The role of the Alabama SHPO is to review, comment, and consult with federal/state agencies, applicants, and consultants. The Alabama SHPO's ability to complete a timely project review largely depends on the quality of the material submitted. Some applicants may find it advantageous to hire a historic preservation professional with expertise in history and/or architectural history.

NOTE: Section 106 regulations provide for a 30-day response time by the Alabama SHPO from the **date of receipt**. Project activities may not begin until our office has reviewed this information and issued comments.

PROJECT NAME
Solar Photovoltaic Systems - Central Alabama VA Health Care System, East Campus, Tuskegee Alabama

FEDERAL AGENCY PROVIDING FUNDS, LICENSE, OR PERMIT
U.S. Department of Veterans Affairs

AHC NUMBER (If project has been previously submitted)

APPLICANT	TELEPHONE
Mr. Lee Jernigan, Central Alabama VA Health Care System, East Campus	(334) 727-0550 xt. 3970
CONTACT PERSON	TELEPHONE
Christopher Rua	(732) 278-4279

CONTACT EMAIL
chrisr@phe.com

ADDRESS FOR RESPONSE
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7

PROJECT LOCATION

STREET ADDRESS	CITY
2400 Hospital Road	Tuskegee
COUNTY	ZIP CODE
Macon	36083

LATITUDE / LONGITUDE (use this format: 31:30:31.6836; -87:53:40.1183)
32:26:42.3; -85:42:47.4

PROJECT DESCRIPTION

Describe the overall project in DETAIL. Be sure to note if the project involves new construction, if existing buildings will be altered (if so, provide the proposed work in detail), and / or if any buildings/structures will be demolished. Use additional pages if necessary.

See Attachment E for Project Description.

AREA OF POTENTIAL EFFECT (APE)

The APE varies with project types and can be direct or indirect (physical, visual, auditory, etc.). The APE is defined as "the geographic area or areas within which an undertaking may cause changes in the character of use of historic properties, if any such properties exist." Factors to consider when determining the APE include; topography, vegetation, existing development, orientation of an existing resource to the project, physical siting of a resource, and existing and planned future development. For example:

1) Rehabilitation, renovation, and/or demolition of a historic building or structure, or new construction: the APE might include the building itself and the adjacent setting.
2) Streetscapes: the APE might include the viewshed from the street.
3) Pedestrian/bicycle facilities: the APE might extend the length of the corridor and for some distance on both sides of the corridor.
4) Underground utilities: the APE would usually be limited to the area of ground disturbance.

Attach a map indicating the precise location of the project and the boundaries of the APE, preferably a clear color copy of a USGS topographic quadrangle map (7.5 minute). For projects in urban areas, also include a city map that shows more detail. USGS topographic maps can be printed from this website: www.digital-topo-maps.com. City maps can be printed using www.google.com/maps.

Provide current, high resolution color photographs that illustrate the project area and the entire APE as defined above. Digital prints will be accepted, but photographs should also be submitted on a CD or DVD.

ARCHAEOLOGY (Ground Disturbing Activities)

Has the ground in the project area been disturbed other than by agriculture (i.e. grading, grubbing, clear cutting, filling, etc.)?

☑ Yes ☐ No ☐ Don't know ☐ N/A

If yes, describe in detail. Use additional pages as necessary. Photographs are helpful.

Some ground disturbance has taken place due to the creation of a golf course at the site in 1923 (https://mytuathletics.wordpress.com/2015/07/13/taking-a-look-back-tuskegee-university-golf-history/). However, the exact extent of this golf course is not known and not clear from historic aerial photographs, however, carefully graded and terraced areas are evident at the site of the tennis courts, parking area and basketball court. The linear arrangement of trees appear to be evidence of the previous golf course. A linear "sinkhole" within the proposed PV system location has been identified by VA personnel as the location of a previous utility line running through the area.

Describe the present use and condition of the property. Use additional pages as necessary.

The proposed site is an area of landscaped lawn located approximately 200 feet west of Building 69 of the East Campus' built environment. Other buildings within the APE include Building 92 which is about 400 feet east of the project site, and Buildings 68 and 44, each located at the eastern edge of the APE for historic structures. There is a small paved basketball court directly east of the proposed site and a larger paved tennis court and parking area to the immediate north of the proposed site. The area to the west of the proposed site is heavily forested. Buildings 44, 68 and 69 are contributing resources to the Tuskegee Veterans Administration Historic District, while Building 92, constructed in 1963, falls outside of the period of significance of the district and is non-contributing.

To your knowledge, has a Cultural Resource Assessment (CRA) been conducted in the proposed project area?

☐ Yes ☐ No ☑ Don't know ☐ N/A

If yes, attach a copy of the archaeologist's report.

BUILDING & STRUCTURE INFORMATION

Background research for previously identified historic properties within an APE may be undertaken at the Alabama SHPO in Montgomery. These files include the National Register of Historic Places, Alabama Register of Landmarks & Heritage, Alabama Historic Cemetery Register, and county architectural surveys. To request a research appointment, contact Nicole Woods at 334.230.2673 or Nicole.Woods@preserveala.org. Alabama SHPO staff cannot perform the file research for your project. As mentioned previously, some applicants may find it advantageous to hire a historic preservation professional with expertise in history and/or architectural history to complete the identification and evaluation of historic properties.

1) Is the project located within or adjacent to a National Register of Historic Places (NRHP) listed or eligible historic district?
   ☑ YES ☐ NO If yes, provide the name of the district: Tuskegee Veterans Administration Hospital

2) Within the project APE, are there any buildings or structures that are 50 years old or older?
   ☑ YES ☐ NO If yes, provide numbered photographs of each that have been keyed to a site map.

3) Are any of the buildings or structures identified in question #2 listed or eligible for listing in the NRHP?
   ☑ YES ☐ NO If yes, identify the properties by name or photo number.
   If no, provide an explanation as to why the properties are not eligible for the NRHP.

4) Does the project involve the rehabilitation, renovation, demolition, or addition to any building or structure that is 50 years old or older?
   ☐ YES ☑ NO If yes, provide rehabilitation plans and / or reasons for demolition.

A note about photographs: Current, high resolution photographs must be submitted on CD or DVD. Prints may also be submitted, but a CD or DVD of the images must accompany the prints. Black and white photocopies, faxed photographs or Polaroids will **not** be accepted. If you checked "yes" for #2 and #3 above, include photographs of those properties. Take photographs of the overall property and the exterior of each building on the property, including outbuildings. Include views of the overall setting, views of the building in its immediate surrounding showing the relationship of the building to neighboring buildings, and views of significant landscape features (i.e. tree lined approaches, stone walls, formal gardens, etc.). Exterior views of the building should include full views of each side (if possible) and views of important architectural details. Key all photographs to a site map.

If the project involves rehabilitation, include photographs of the building(s) involved and especially the areas of the building slated for rehab work. Label each exterior view to a site map and label all interior views. If the project involves new construction, include photographs of the surrounding area looking out from the project site. Include photographs of any buildings (more than 50 years old or older) that are located on the project property or on adjoining property.

EFFECTS DETERMINATION

An effect occurs when an action alters the characteristics of a property that may qualify it for the National Register of Historic Places or alters the features of a property's location, setting, or use that contributes to its significance. How will this project affect any of the properties identified in the previous section? Use additional pages as necessary.

1) Will the project take away or change anything within the apparent or existing boundary of any of the identified historic properties?
   ■ YES ☐ NO If yes, explain: The PV system would be constructed within the boundaries of the NRHD.

2) Will the project change the view from or the view of any of the identified historic properties?
   ■ YES ☐ NO If yes, explain: The PV system would be visible from the view west of Building 69.

3) Will the project introduce any audible or atmospheric elements to the setting of any of the identified historic properties?
   ☐ YES ■ NO If yes, explain: _____

4) Will the project result in the transfer, lease, or sale of any of the identified historic properties?
   ☐ YES ■ NO If yes, explain: _____

CHECKLIST: Did you provide the following information?	
☑ Completed form.	☑ Photographs of current site conditions and all identified historic properties keyed to a site map.
☑ Maps with project area, APE, and any historic properties marked and identified.	☑ For new construction, rehabilitations, etc., attach work plans, drawings, etc.
☐ Other supporting documents (if necessary to explain the project).	☑ Description of present use and condition of the project area.

Section 106 regulations provide for a 30-day response time by the Alabama SHPO from the <u>date of receipt</u>. Project activities may not begin until our office has reviewed this information and issued comments.

Upon receipt, applications and attachments become the property of the State of Alabama.

For questions regarding this form or the Section 106 Review Process, contact Amanda McBride, Section 106 Coordinator, at 334.230.2692 or Amanda.McBride@preserveala.org.

Return this Form and Attachments to:

Lee Anne Wofford, Deputy SHPO
Alabama Historical Commission
Attn: Section 106 Review
468 South Perry Street
Montgomery, Alabama 36130-0900 (US post) 36104 (courier)

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

June 27, 2019

Mr. Frank White, Program Head
Review and Compliance
Alabama State Office of Parks, Recreation and Historic Preservation
Alabama Historical Commission
468 South Perry Street
Montgomery, Alabama 36104

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. White,

The U.S. Department of Veterans Affairs (VA) has prepared a Draft Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to notify the Alabama Historical Commission of changes to the Proposed Action that have occurred since initiation of consultation in March 2019 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by these changes. Table 1 compares elements of the original Proposed Action as described in the March 2019 scoping letter to the updates project description as presented in the Draft EA.

Table 1. Summary of Changes to the Proposed Action

Project Aspect	**Original Proposed Action (as described in March 2019 scoping letter)**	**Revised Proposed Action (as described in June 2019 Draft EA)**
Number of arrays (or sub-arrays)	1	2
Number of panels	864	2,968
Total area of PV array(s)	1 acre	3.2 acres
System size	250 kilowatts	900 kilowatts
Annual output	487.7 megawatt hours	1,782 megawatt hours
Length of trenching (subsurface electrical lines)	400 feet	1,010 feet
Ground surface prep	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

Attachment A contains copies of the initial consultation letter and the Alabama Historical Commission's response, received April 3, 2019. A copy of the Draft EA, including revised figures depicting the updated PV arrays, is enclosed for your review.

We respectfully ask that you respond in writing within 30 days regarding any new resources that could be affected under the revised Proposed Action. Your response will become part of our written record and included within the associated NEPA documentation.

Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Prior Consultation Documents

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 7, 2019

Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
Alabama Department of Conservation and Natural Resources
64 N. Union Street
Montgomery, AL 36130

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. Guy,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with the Alabama Department of Conservation and Natural Resources and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 488 megawatt hours (MWh) of energy, or approximately 4 percent of the CAVHCS-East Campus’s current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

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Energy Management Engineer
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Potomac-Hudson Engineering, Inc.
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Sincerely,

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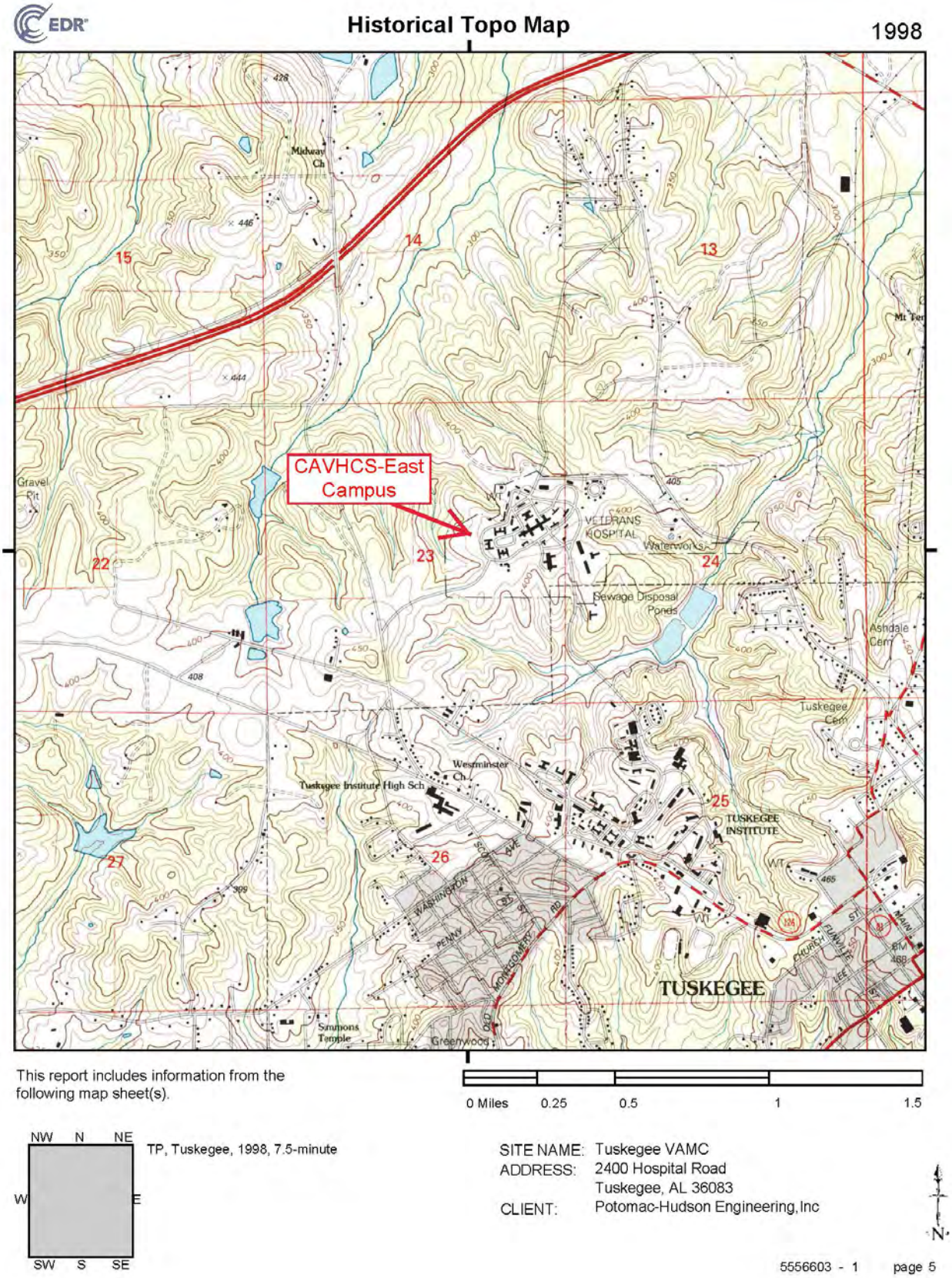

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

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Figure 1. PV Layout Details

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Veterans Health Care System

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East Campus
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Tuskegee AL 36083

June 27, 2019

Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
Alabama Department of Conservation and Natural Resources
64 N. Union Street
Montgomery, AL 36130

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Environmental Assessment for Proposed Solar Photovoltaic System

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Number of panels	864	2,968
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Ground surface preparation	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system consisting of two connected PV arrays. The PV arrays, which will be approximately 3.2 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. PV sub-array #1 would be located on an approximately 1.3-acre area on the north side of the project area, while PV sub-array #2 would occupy an approximately 1.9-acre area to the south. Construction would be expected to last approximately 6 months.

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Maps

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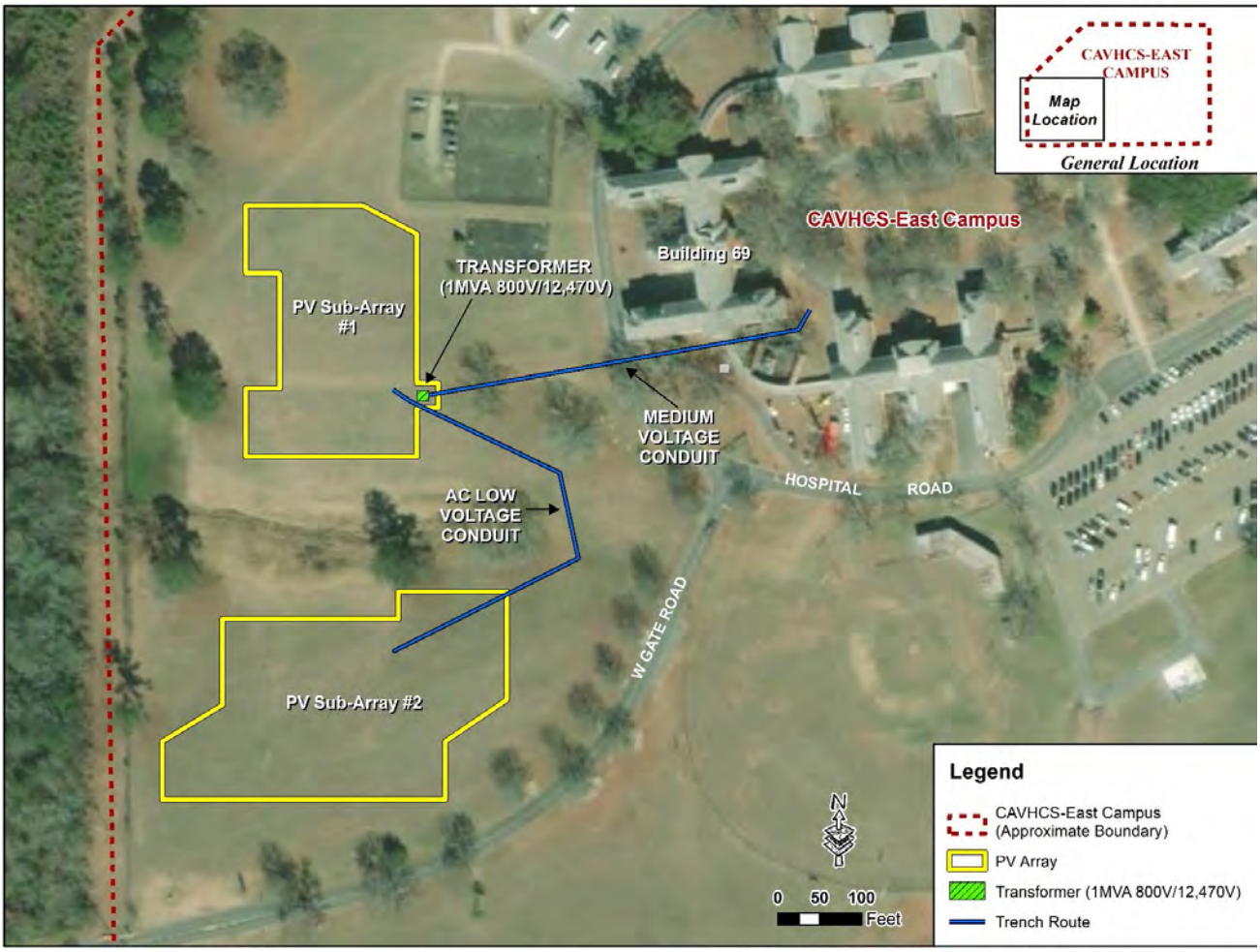

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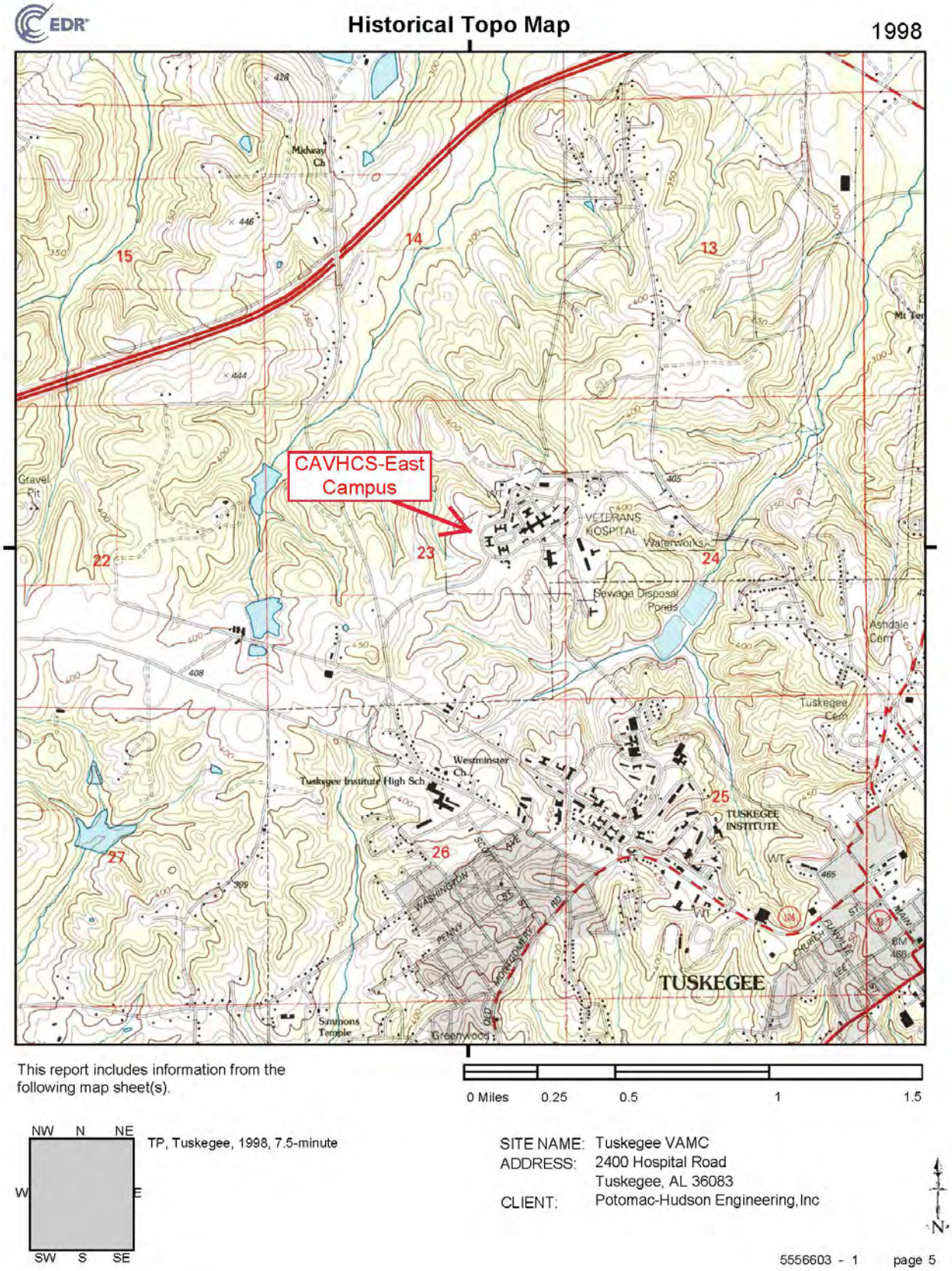

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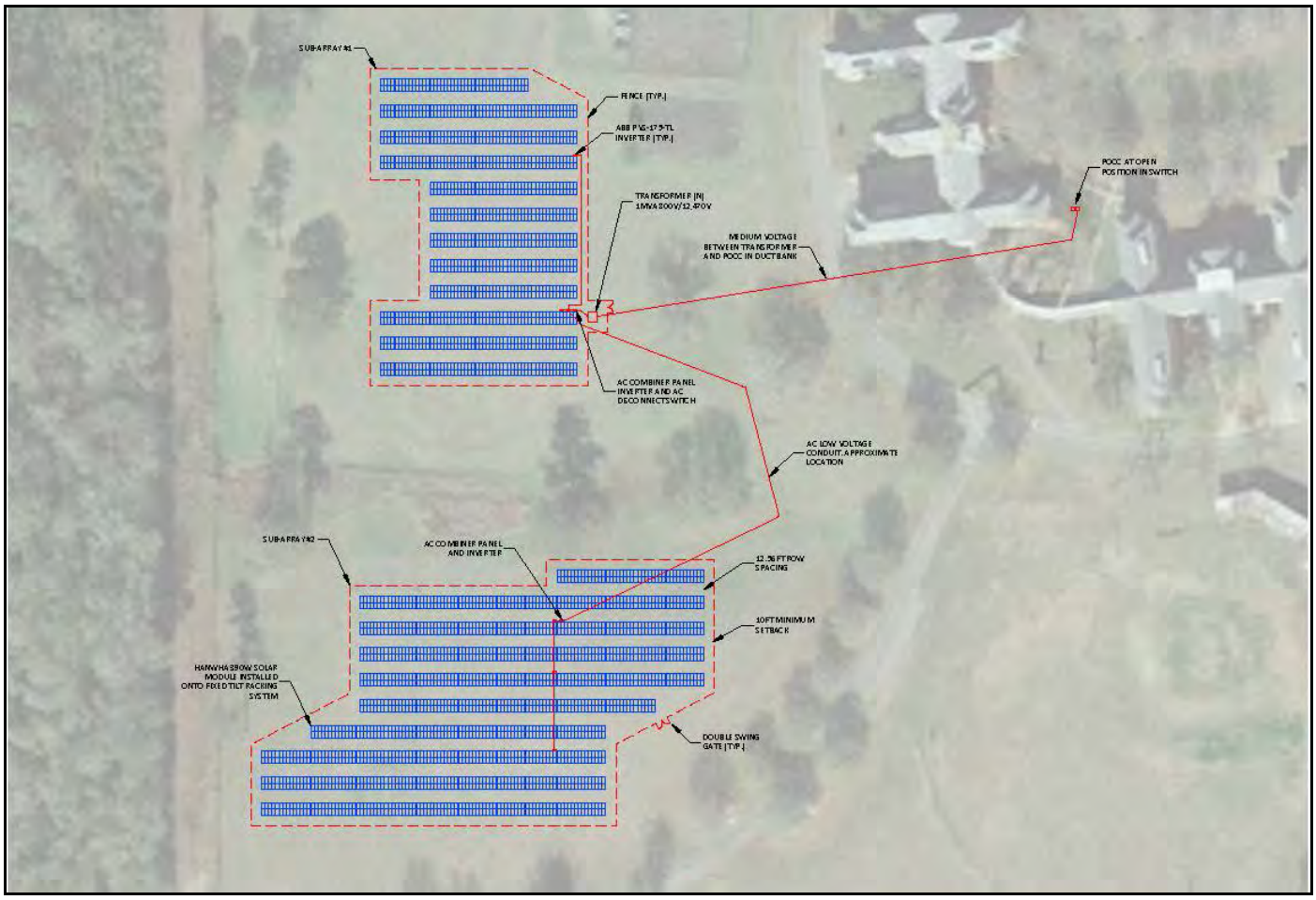

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61 Forsyth Street, SW
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U.S. Fish and Wildlife Service
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DEPARTMENT OF VETERANS AFFAIRS
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March 7, 2019

Alabama Department of Environmental Management
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Director
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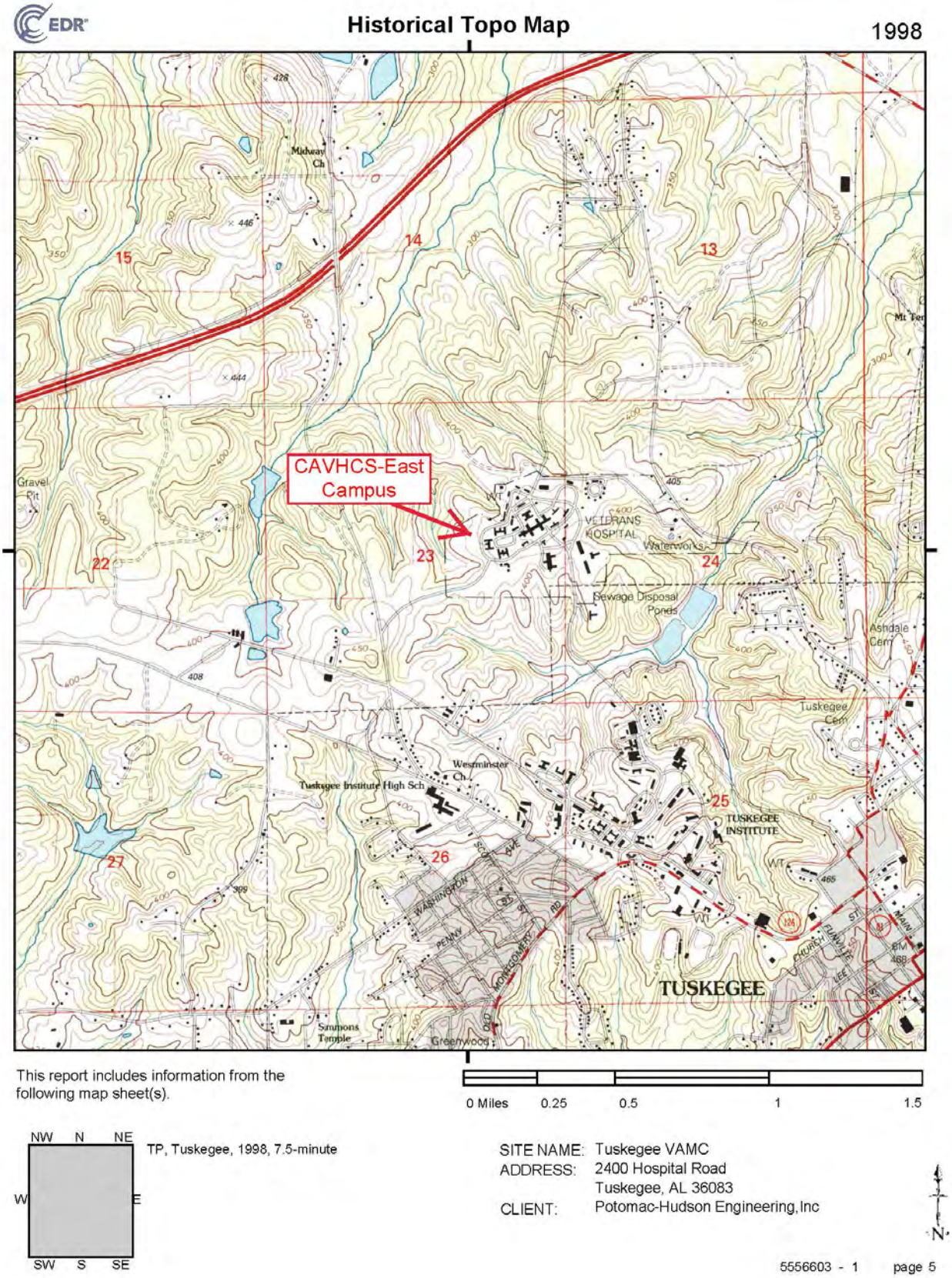

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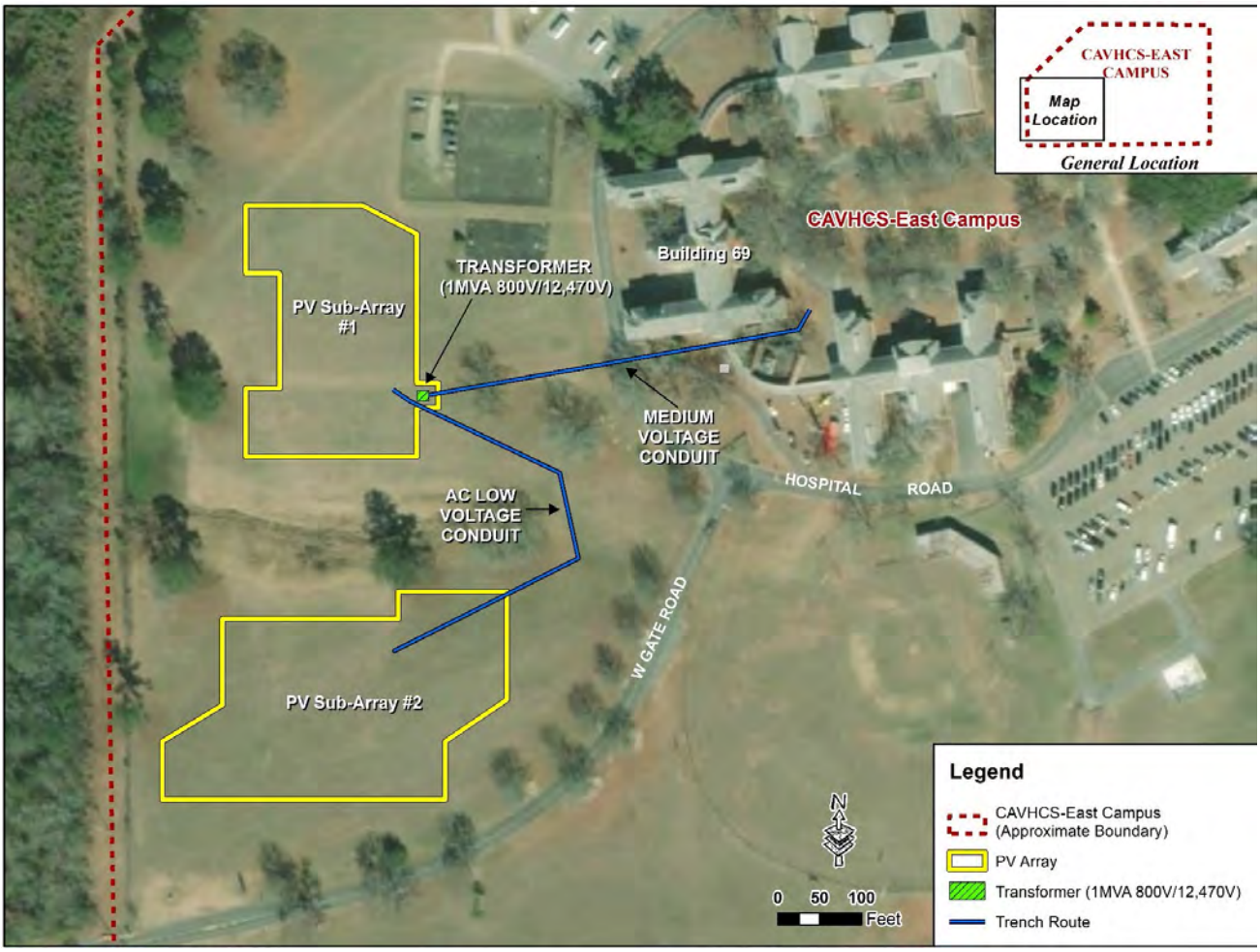

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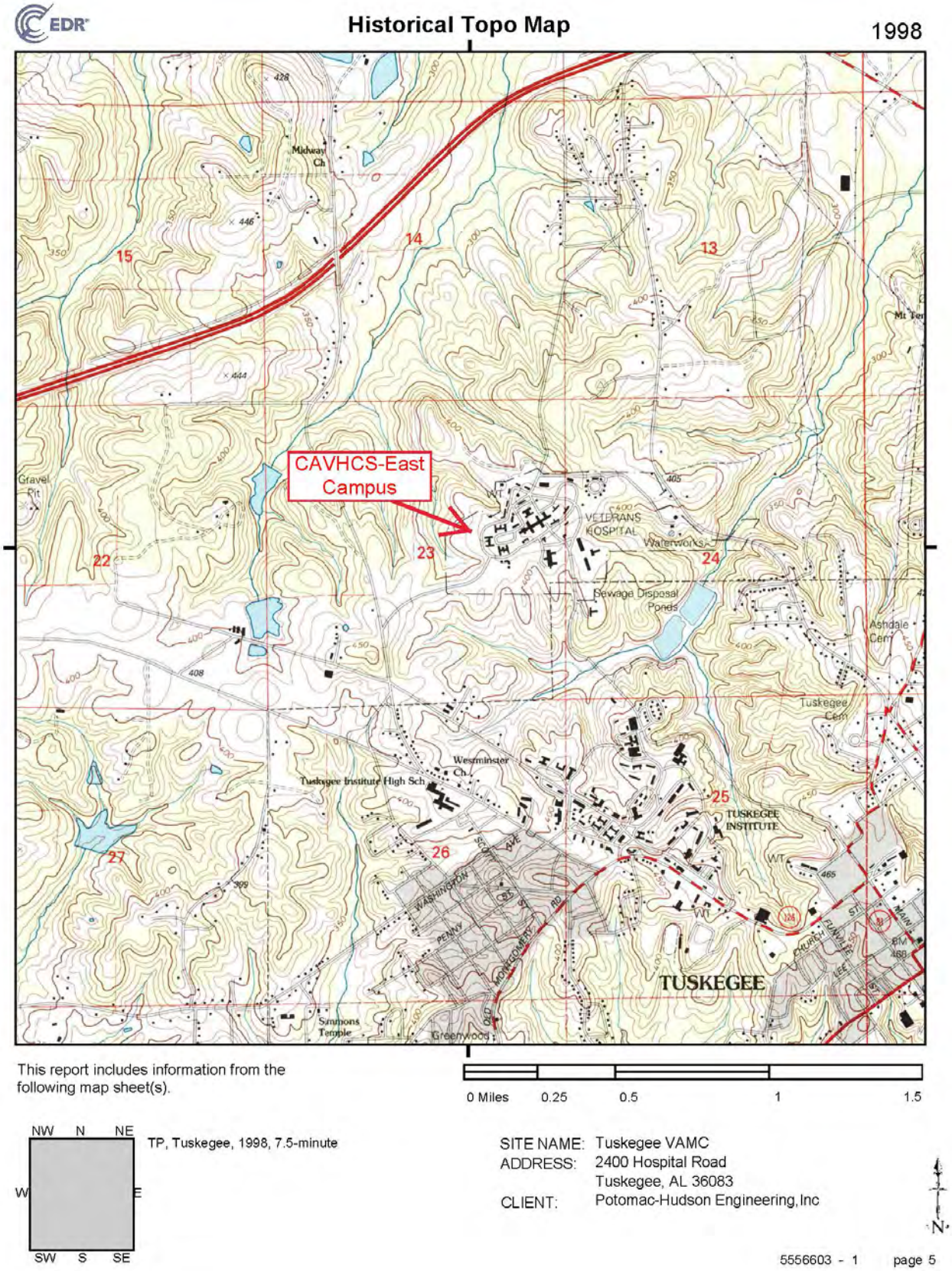

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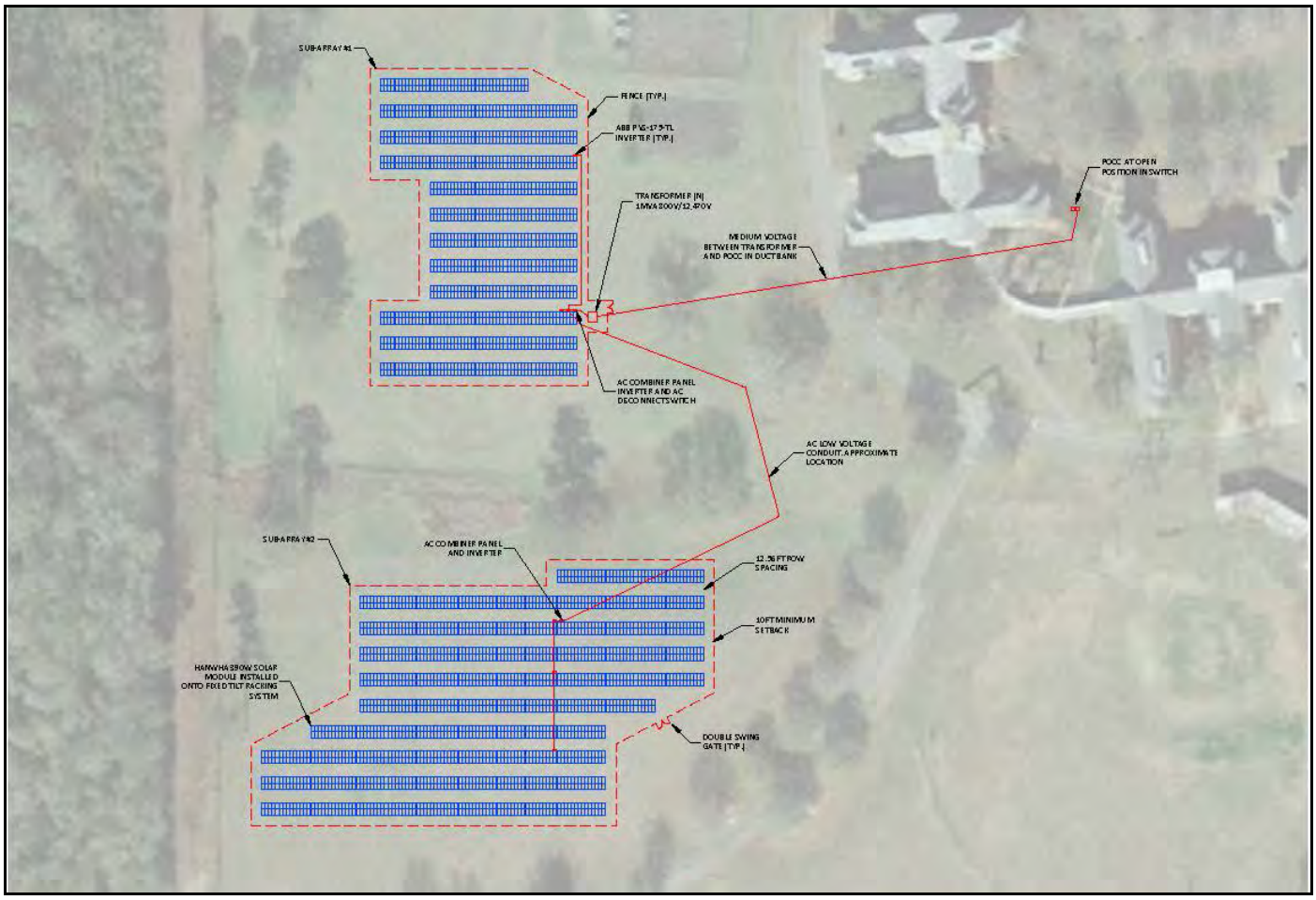

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Montgomery, AL 36130

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, AL 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

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Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 7, 2019

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, Alabama 36110

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Ms. Clay,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to inform the Alabama Department of Transportation of the project and solicit feedback regarding any questions or concerns your agency may have regarding the project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 488 megawatt hours (MWh) of energy, or approximately 4 percent of the CAVHCS-East Campus’s current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location . All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we are preparing an EA that will evaluate the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs’ Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We seek your input into the NEPA process concerning any environmental issues or concerns your agency may have on the potentially affected area, as referenced above and depicted in Attachments A and B. Data that you make available will provide valuable and necessary input into the NEPA analytical process. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the EA. A list of agencies contacted as part of this NEPA process is included in Attachment C.

We respectfully ask that you respond in writing to this request within 30 days to enable us to complete this phase of the project within the scheduled timeframe. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
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Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Maps
Attachment B. Approximate Location and Design of the Proposed Action
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Attachment A
Maps

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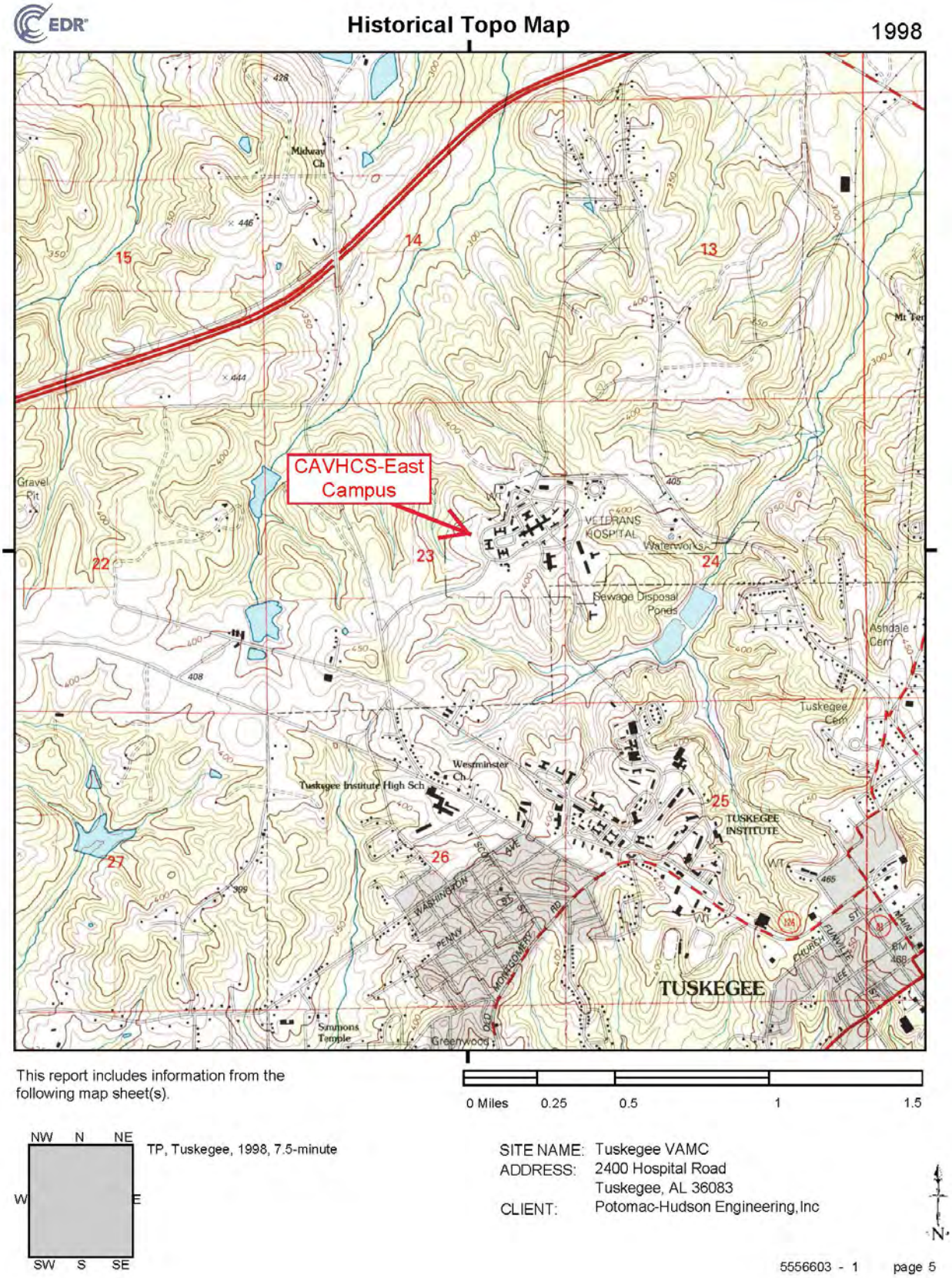

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

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Figure 1. PV System Layout Details

Attachment C
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Acting Regional Administrator
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Atlanta, GA 30303

U.S. Fish and Wildlife Service
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June 27, 2019

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Project Aspect	**Original Proposed Action (as described in March 2019 scoping letter)**	**Current Proposed Action (as described in June 2019 Draft EA)**
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Number of panels	864	2,968
Total area of PV array(s)	1 acre	3.2 acres
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Ground surface preparation	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system consisting of two connected PV arrays. The PV arrays, which will be approximately 3.2 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. PV sub-array #1 would be located on an approximately 1.3-acre area on the north side of the project area, while PV sub-array #2 would occupy an approximately 1.9-acre area to the south. Construction would be expected to last approximately 6 months.

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If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 1,782 megawatt hours (MWh) of energy, or approximately 15 percent of the CAVHCS-East Campus's current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV arrays would be connected to each other via a 510-foot underground electrical line. A second buried electrical conduit, approximately 500 feet in length, would also extend from PV sub-array #1 to a pad-mounted switch adjacent to Building 69. All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

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Energy Management Engineer
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Maps

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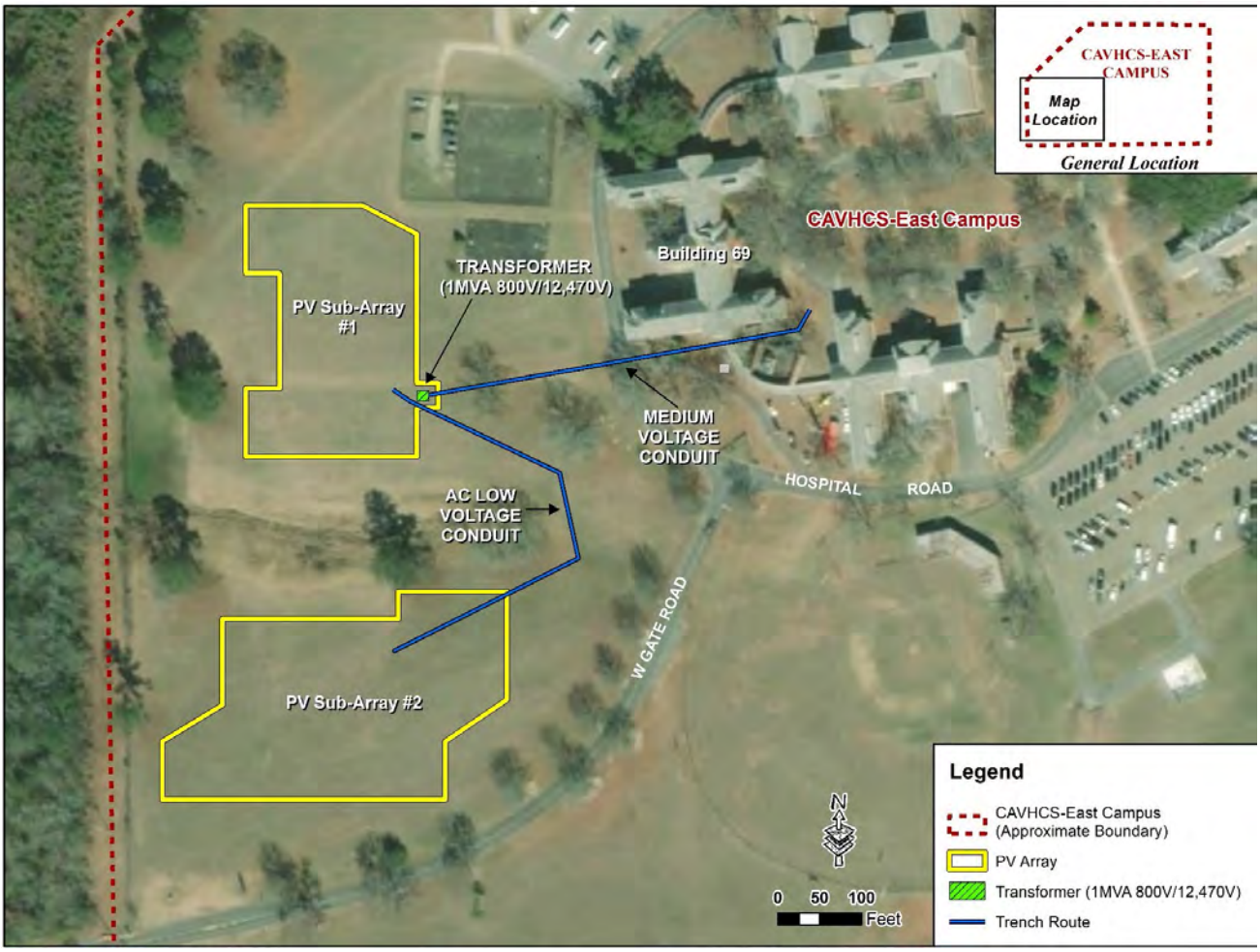

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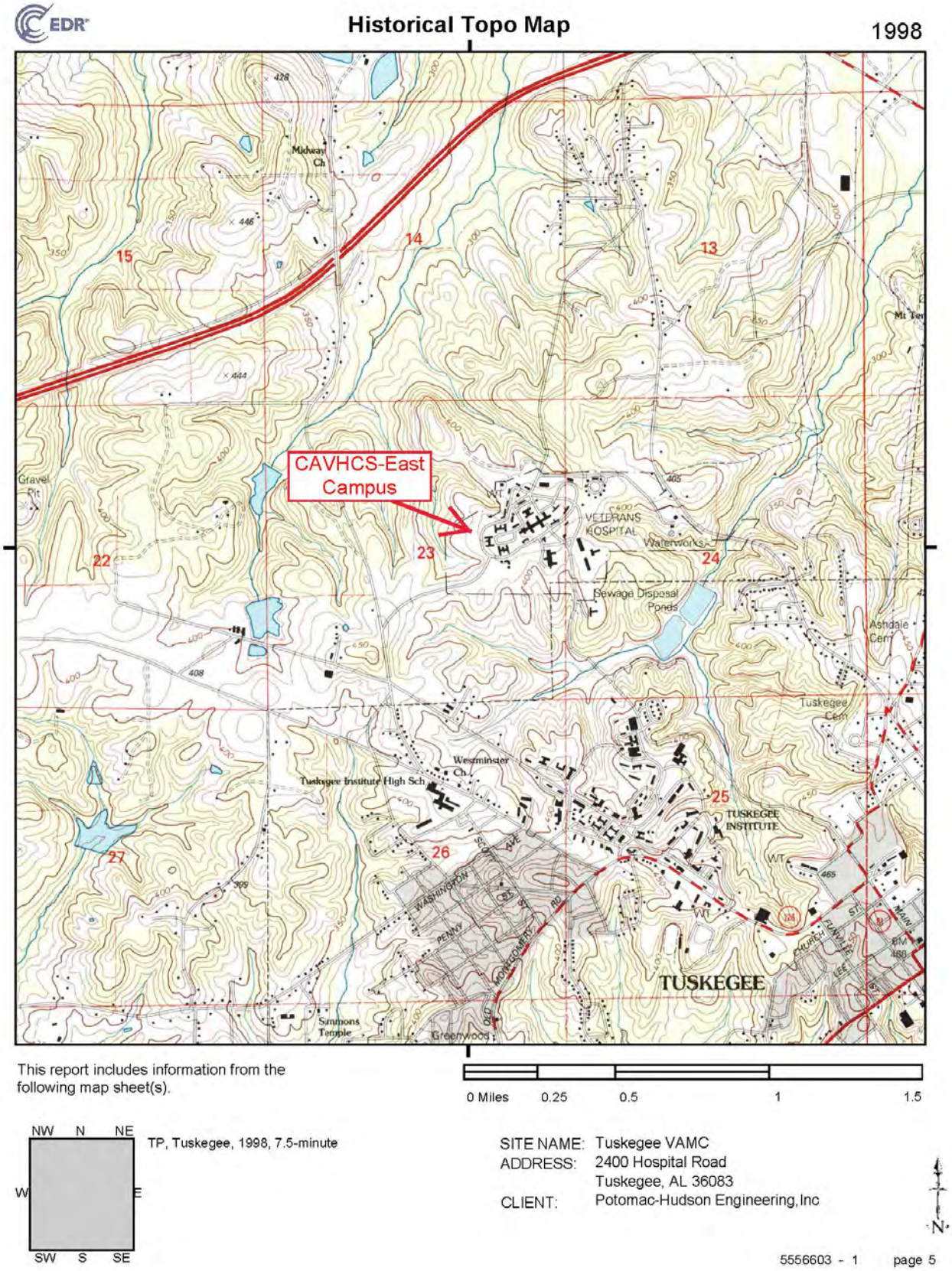

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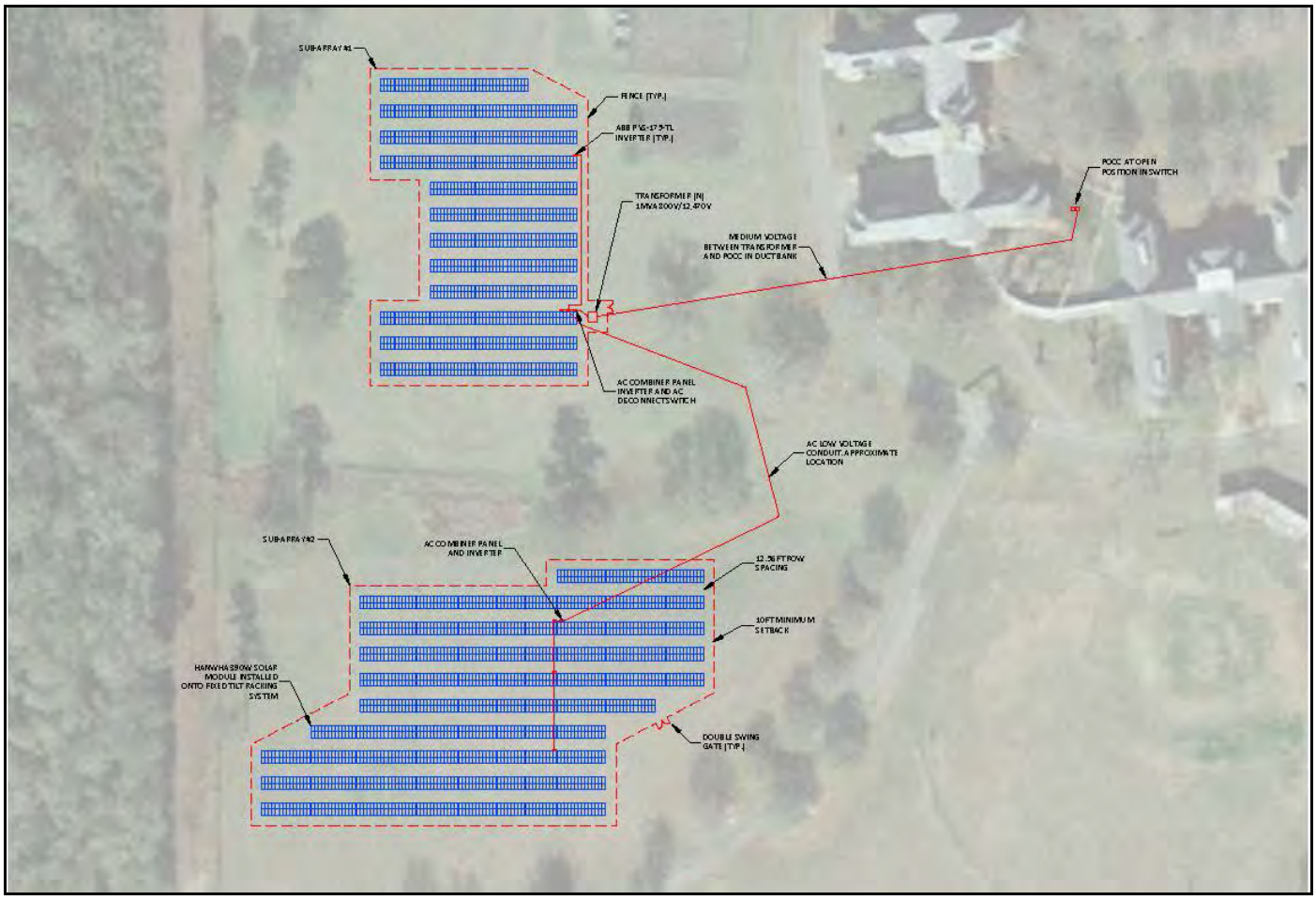
Approximate Location and Design of the Proposed Action



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Attachment C
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Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
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61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
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March 7, 2019

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

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We seek your input into the NEPA process concerning any of the following specific environmental issues or concerns your agency may have on the potentially affected areas, as referenced above and depicted in Attachments A and B:

- Federal- or state-listed threatened or endangered species, any species proposed for such listing, or critical habitat for such species that may occur within a 1-mile radius of the proposed site.
- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues.
- Natural resource issues.
- Traffic, noise, or socioeconomic concerns.
- Air quality concerns.
- Additional environmental, cultural, land use, or socioeconomic information or concerns your agency may have with regard to the referenced sites.
- Data concerning any present or reasonably foreseeable future actions in the vicinity of the CAVHCS-East Campus that could contribute to cumulative effects.

Data that you make available will provide valuable and necessary input into the NEPA analytical process. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the EA. A list of agencies contacted as part of this NEPA process is included in Attachment C.

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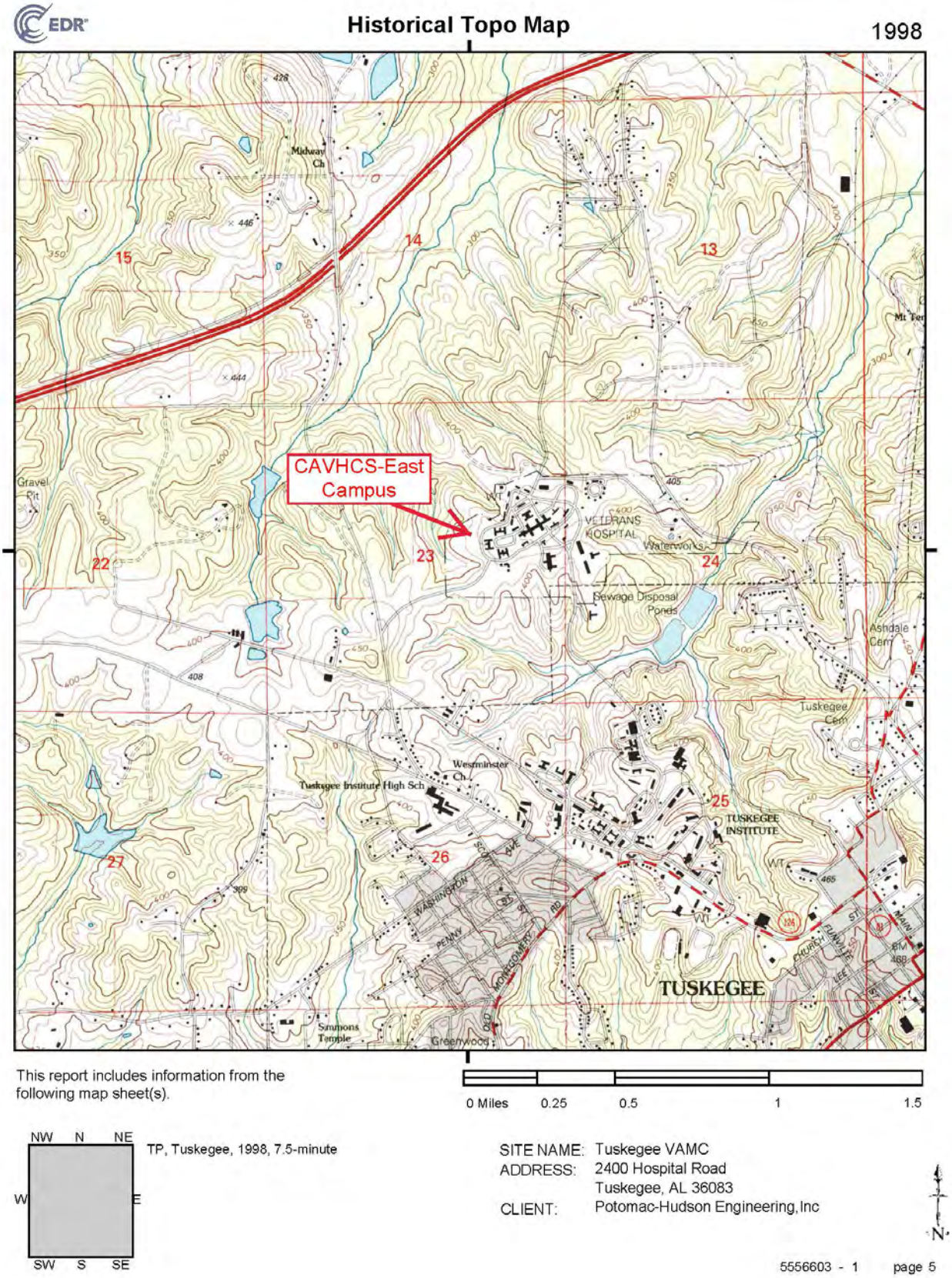

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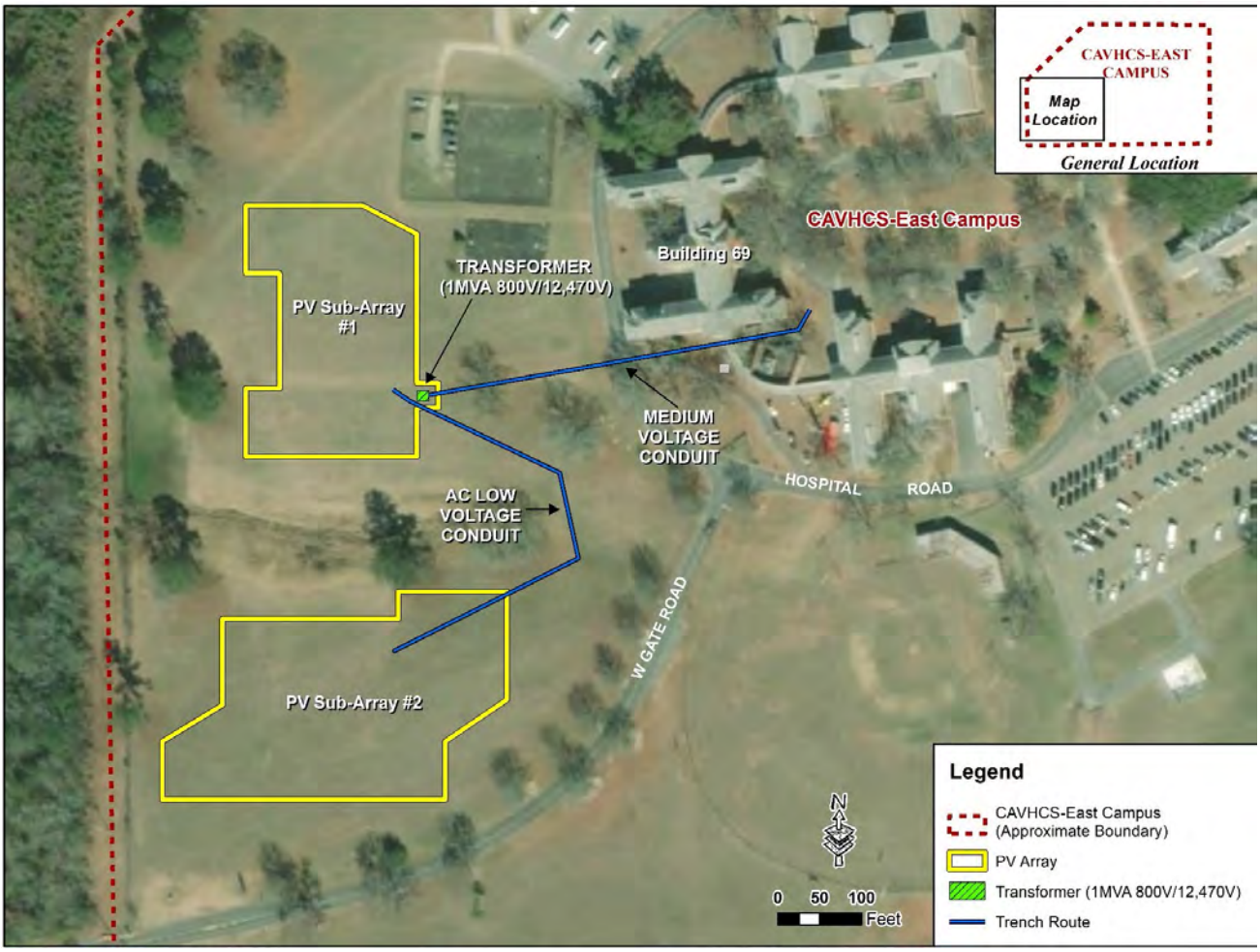

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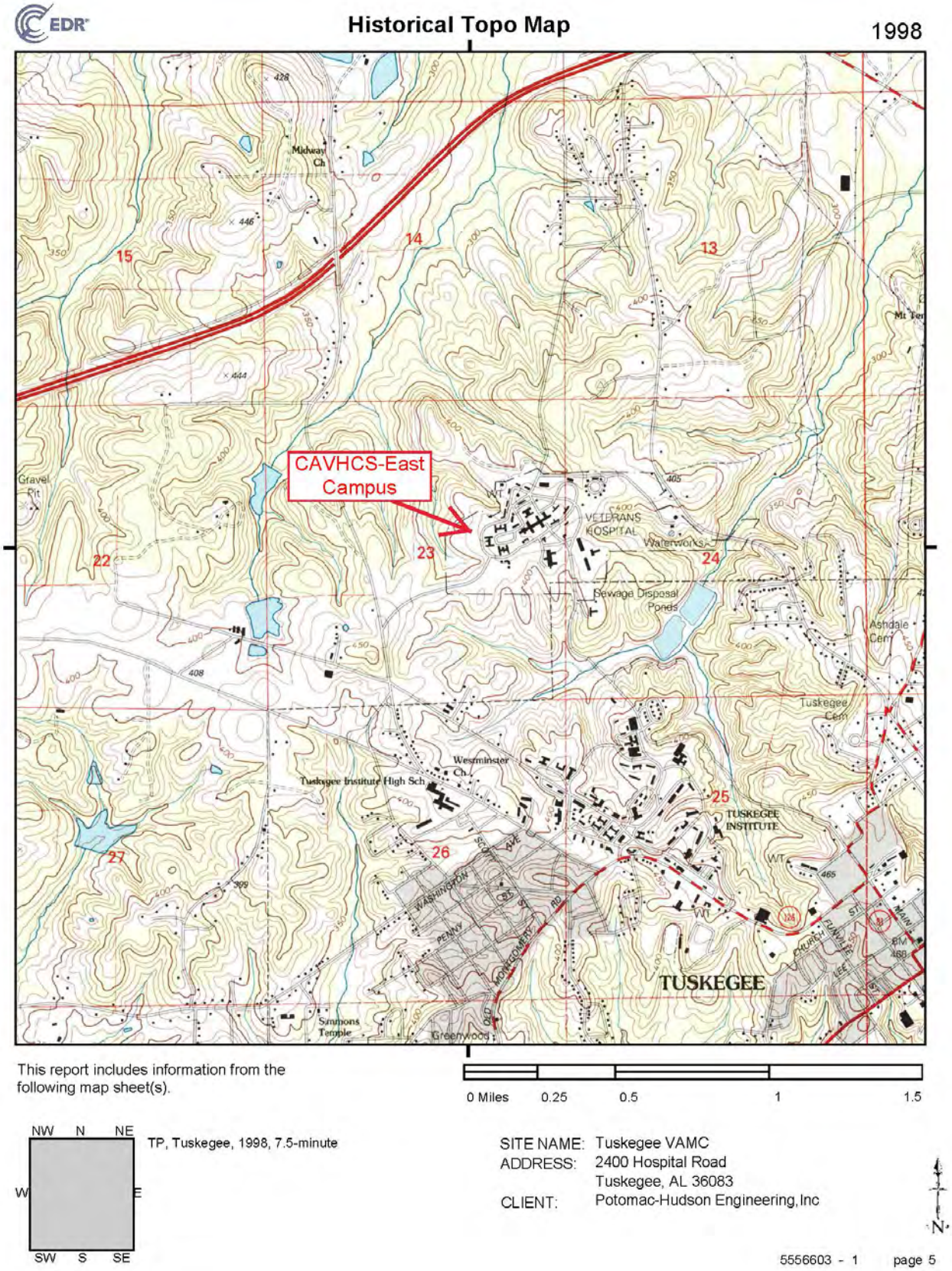

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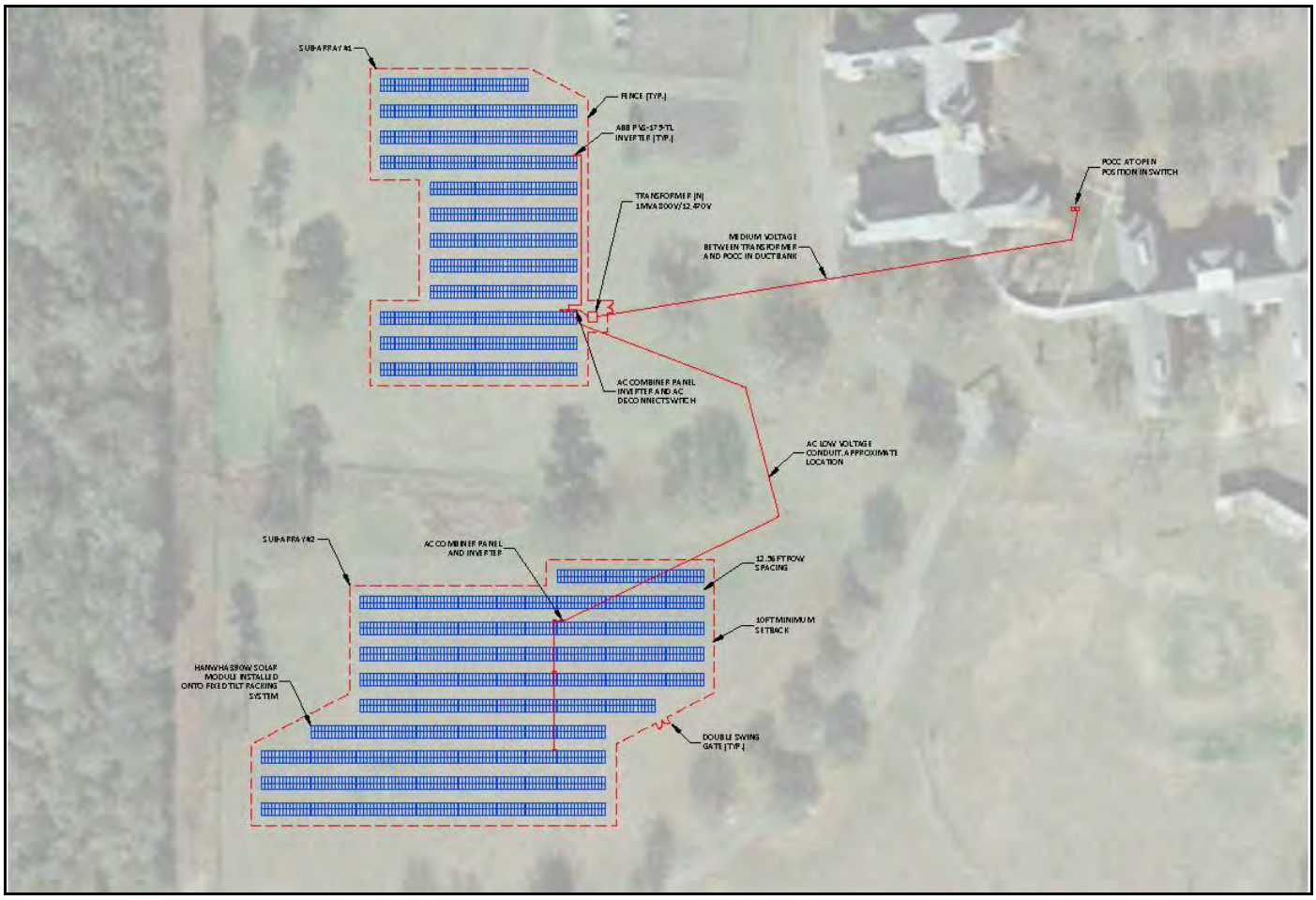

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Atlanta, GA 30303

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Alabama Ecological Services Field Office
Mr. Bill Pearson
Field Supervisor
1208 Main Street
Daphne, AL 36526

Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
468 South Perry Street
Montgomery, AL 36104

Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
P.O. Box 301463
Montgomery, AL 36130

Alabama Department of Conservation and Natural Resources
Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
64 N. Union Street
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Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
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Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
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Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 7, 2019

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
Tuskegee, Alabama 36083

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. Houston,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with the City of Tuskegee and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 488 megawatt hours (MWh) of energy, or approximately 4 percent of the CAVHCS-East Campus’s current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location . All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we are preparing an EA that will evaluate the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs’ Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We seek your input into the NEPA process concerning any environmental issues or concerns your agency may have on the potentially affected area, as referenced above and depicted in Attachments A and B. Data that you make available will provide valuable and necessary input into the NEPA analytical process. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the EA. A list of agencies contacted as part of this NEPA process is included in Attachment C.

We respectfully ask that you respond in writing to this request within 30 days to enable us to complete this phase of the project within the scheduled timeframe. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Maps
Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

Attachment A
Maps

Figure 1. Project Site Location Map

Figure 2. Proposed PV System Location

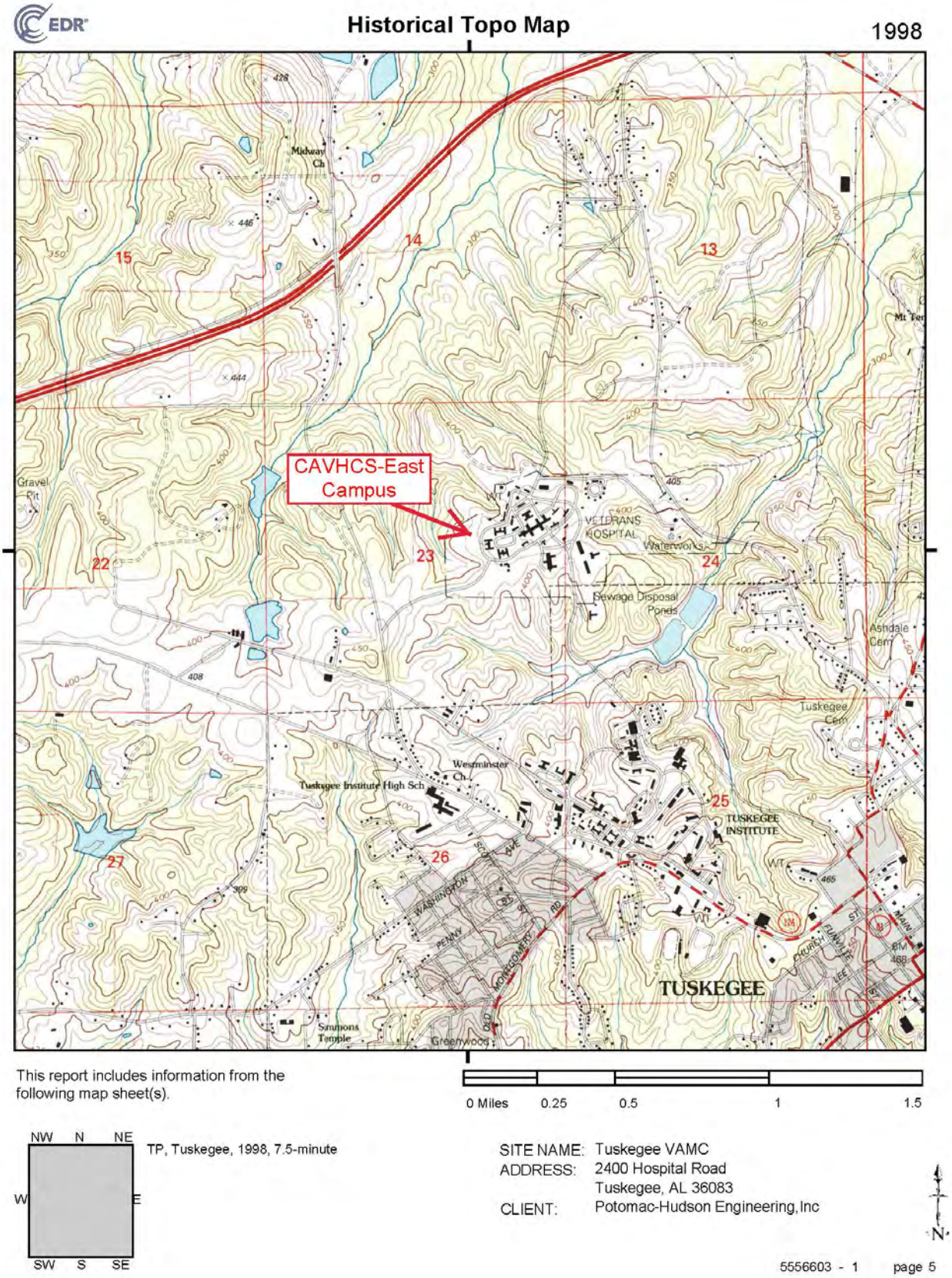

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

Figure 1. PV System Layout Details

Attachment C
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

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June 27, 2019

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
Tuskegee, Alabama 36083

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. Houston,

The U.S. Department of Veterans Affairs (VA) has prepared a Draft Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to notify the City of Tuskegee of changes to the Proposed Action that have occurred since initiation of consultation in March 2019 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by these changes. Table 1 compares elements of the original Proposed Action as described in the March 2019 scoping letter to the updated project description as presented in the Draft EA. Attachment A, Figure 2 and Attachment B, Figure 1 depict the current Proposed Action.

Table 1. Summary of Changes to the Proposed Action

Project Aspect	**Original Proposed Action (as described in March 2019 scoping letter)**	**Current Proposed Action (as described in June 2019 Draft EA)**
Number of arrays (or sub-arrays)	1	2
Number of panels	864	2,968
Total area of PV array(s)	1 acre	3.2 acres
System size	250 kilowatts	900 kilowatts
Annual output	487.7 megawatt hours	1,782 megawatt hours
Length of trenching (subsurface electrical lines)	400 feet	1,010 feet
Ground surface preparation	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system consisting of two connected PV arrays. The PV arrays, which will be approximately 3.2 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. PV sub-array #1 would be located on an approximately 1.3-acre area on the north side of the project area, while PV sub-array #2 would occupy an approximately 1.9-acre area to the south. Construction would be expected to last approximately 6 months.

The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The

CAVHCS-East Campus is situated at an approximate latitude of 32° 26' 42.3"N and longitude of 85° 42' 47.4"W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 1,782 megawatt hours (MWh) of energy, or approximately 15 percent of the CAVHCS-East Campus's current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV arrays would be connected to each other via a 510-foot underground electrical line. A second buried electrical conduit, approximately 500 feet in length, would also extend from PV sub-array #1 to a pad-mounted switch adjacent to Building 69. All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we prepared a Draft EA that evaluates the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs' Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We respectfully ask that you respond in writing within 30 regarding any new resources that could be affected under the revised Proposed Action. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

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Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
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Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

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Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

Attachment A
Maps

Figure 1. Project Site Location Map

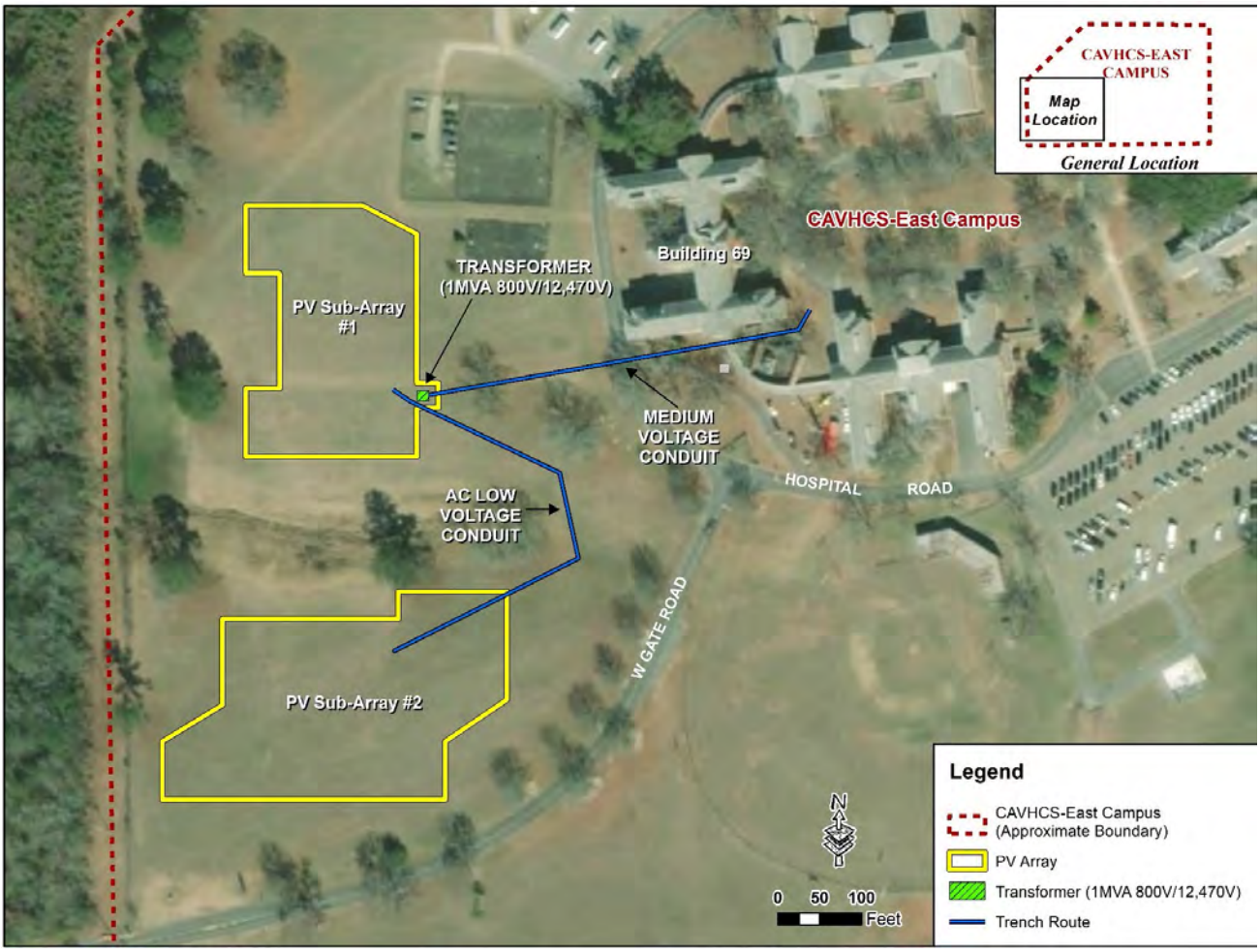

Figure 2. Proposed PV System Location

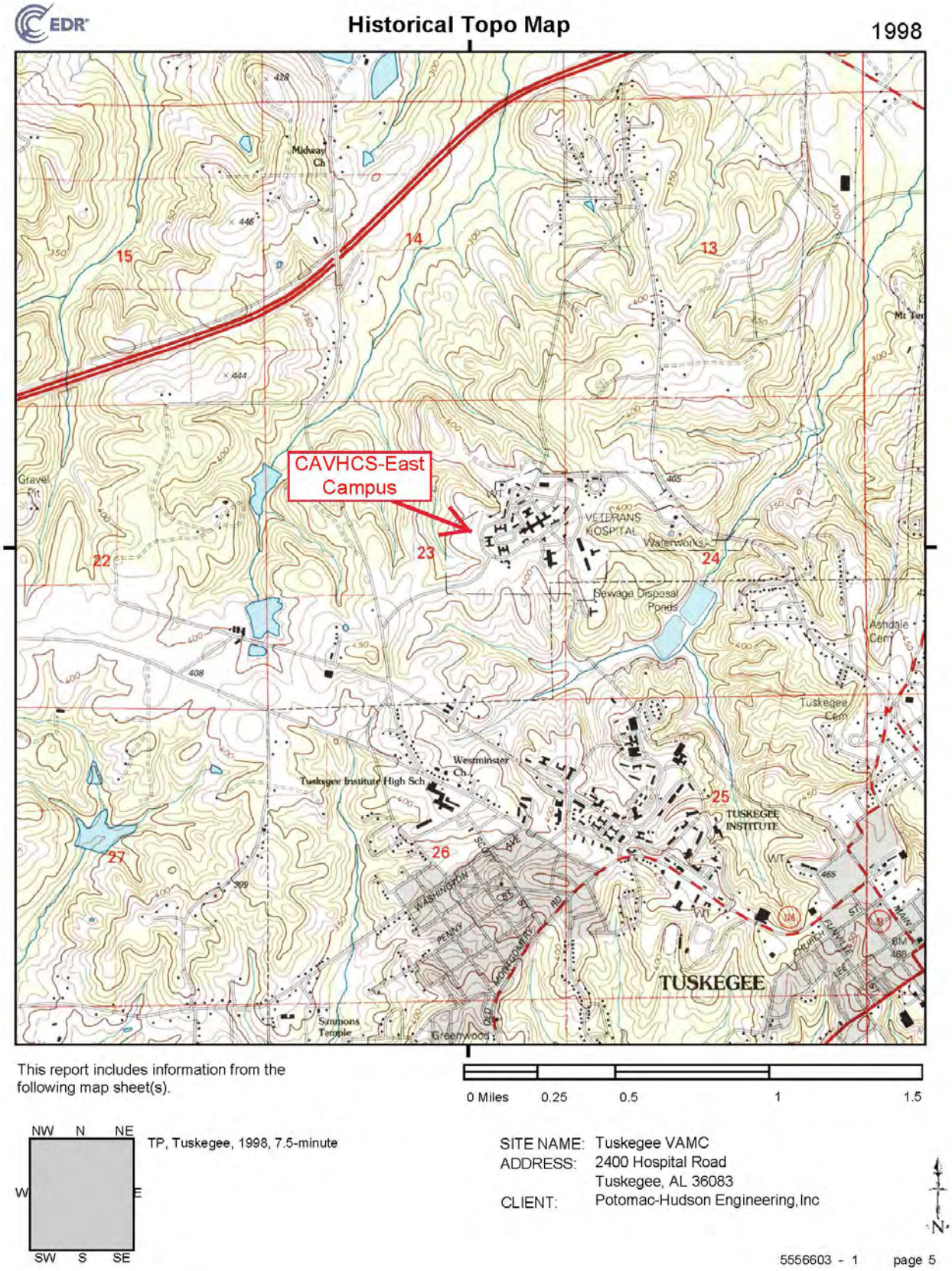

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

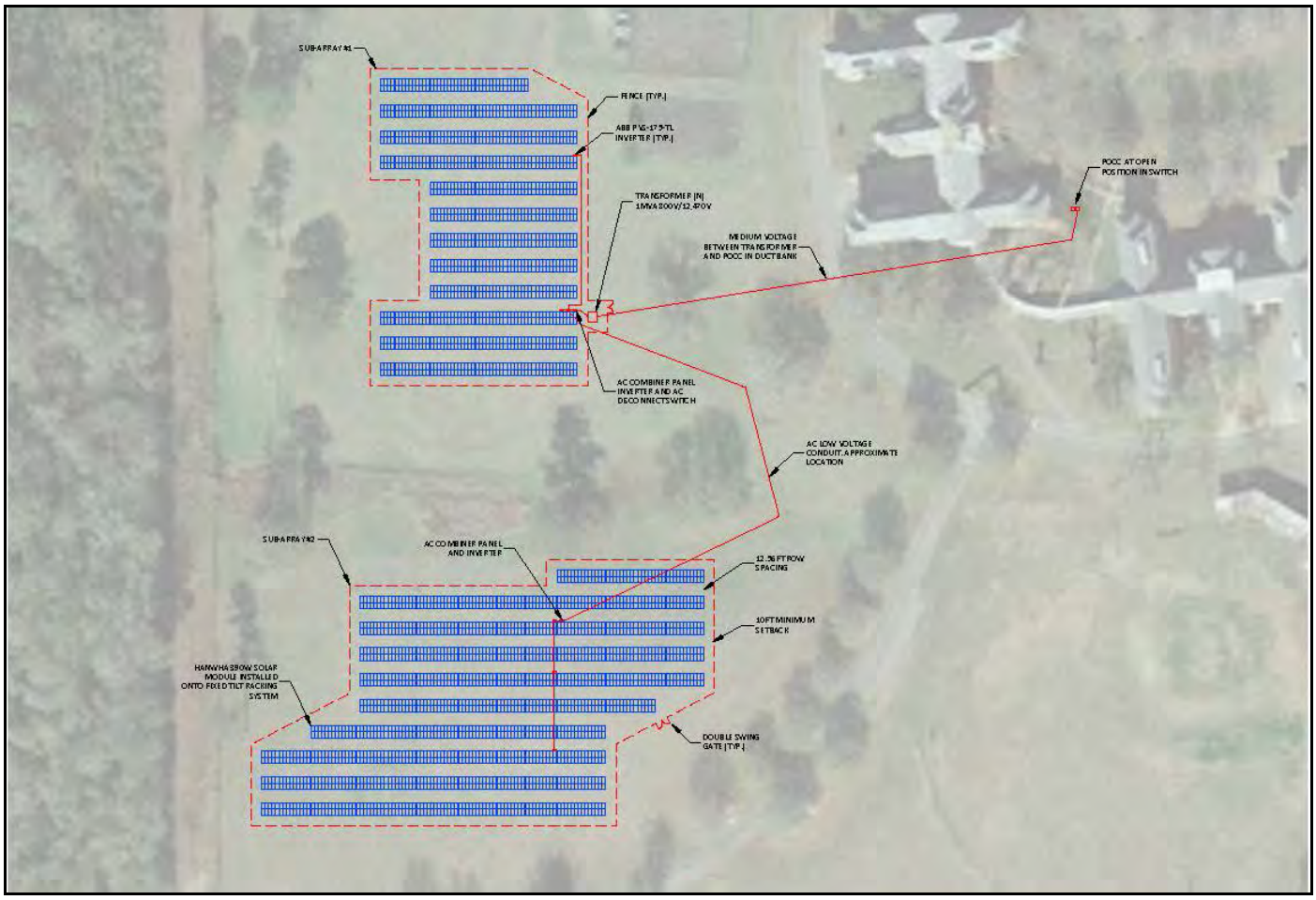

Figure 1. PV Layout Details

Attachment C
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
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From:	Jernigan, Lee CAVHCS
To:	Chris Rua
Subject:	FW: EPA"s Response to Scoping Letter for Solar Photovoltaic System at Central Alabama Veterans Affairs Health Care System – East Campus (Tuskegee)
Date:	Tuesday, April 23, 2019 12:59:29

Chris:

Here is an email response from the EPA located in Atlanta, Georgia.

Thanks,

Lee Jernigan

Lee Jernigan
U.S. Department of Veterans Affairs
Central Alabama Veterans Health Care System
Energy Management Engineer
Mobile Number: 334-558-8378
Tuskegee VA Number: 334-727-0550 Extension 3970
Montgomery VA Number: 334-272-4670 Extension 4874

From: Gates, Kim <Gates.Kim@epa.gov>
Sent: Tuesday, April 23, 2019 11:13 AM
To: Jernigan, Lee CAVHCS <Lee.Jernigan@va.gov>
Cc: chrisr@phe.com; Militscher, Chris <Militscher.Chris@epa.gov>
Subject: [EXTERNAL] EPA's Response to Scoping Letter for Solar Photovoltaic System at Central Alabama Veterans Affairs Health Care System – East Campus (Tuskegee)

April 23, 2019

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS – East Campus
2400 Hospital Road
Tuskegee, AL 36083

SUBJ: Scoping Letter for Proposed Solar Photovoltaic System

Dear Mr. Jernigan:

The U.S. Environmental Protection Agency (EPA) Region 4 acknowledges receipt of your letter, dated March 7, 2019, for information about resources in the vicinity of the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus in Tuskegee that could be impacted by the construction and operation of a ground-mounted solar photovoltaic (PV) system. We reviewed available information, including the Environmental Assessment (EA) for the solar PV system at CAVHCS's West Campus in Montgomery (https://www.centralalabama.va.gov/documents/VA-Montgomery-Solar-PV-System-EA-REVISED-DRAFT.docx), to prepare the following recommendations.

NPDES Permitting & Endangered Species. Because construction of the solar PV system will disturb one or more

acres of contiguous land, a NPDES Construction General Permit from ADEM (http://www.adem.state.al.us/programs/water/constructionstormwater.cnt) is necessary for stormwater management. Conditions for coverage under the permit include certifying compliance with threatened and endangered species eligibility criteria (https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility). The procedure for determining the applicable criterion specifies use of the U.S. Fish & Wildlife Service's online Information, Planning and Conservation (iPaC) tool to identify threatened and endangered species in the project area (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf).

Stormwater Management. Although not discussed in the Scoping Letter, it appears that the basis for installing a solar PV system at the East Campus is the same as the one recognized in the EA for the West Campus: compliance with laws mandating federal agencies reduce energy consumption and improve energy efficiency by using alternative fuels and renewable sources. These laws include the Energy Policy Act of 2005 (EPAct) and the Energy Independence and Security Act of 2007 (EISA). Section 438 of the EISA requires federal agencies to reduce stormwater runoff from development projects. To assist its federal partners with administering Section 438, the EPA published the *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* in 2009 (https://www.epa.gov/nps/stormwater-management-federal-facilities-under-section-438-energy-independence-and-security-act).

As reported in the Scoping Letter, the proposed solar PV system will be installed on a landscaped lawn area after: (1) removal of vegetation and approximately four inches of topsoil, and (2) placement of a vegetation barrier and gravel base. However, a study conducted by Cook and McCuen (https://ascelibrary.org/doi/10.1061/%28ASCE%29HE.1943-5584.0000530) determined that a gravel cover increased peak stormwater discharge significantly, whereas the addition of solar panels over a grassy field did not measurably affect runoff volume or peak discharge rates. Another study, performed at DOE's National Wind Technology Center (https://www.nrel.gov/docs/fy17osti/66218.pdf), found that revegetation was not only possible, but it can achieve ground cover sufficient to control erosion. Consistent with the EPA's technical guidance, we advocate utilizing measures that will retain rainfall onsite through infiltration, evaporation/transpiration, and re-use to the same extent as occurred prior to development.

Of note is that neither a rooftop system nor a canopy-style system over a paved parking lot (such as the Vetegee Stadium parking lot) would impact hydrology or water quality. Solar PV systems have been installed on existing impervious surfaces at other VA facilities, including the CAVHCS's West Campus and the Tuscaloosa VA Medical Center. The EPA did not have access to the *Solar Photovoltaic and Solar Thermal System Feasibility Analysis - CAVHCS East and West Campuses* referenced in the West Campus EA, so it is unclear why an existing impermeable surface was not selected for the East Campus system.

Waters of the United States. In accordance with Section 404 of the Clean Water Act, the project should avoid and minimize, to the maximum extent practicable, placement of dredged or fill material in jurisdictional waters of the U.S., including the unnamed tributary to Uphapee Creek that is already impacted by fill material in the project area. The unnamed tributary is listed as riverine wetlands in the U.S. Fish & Wildlife Service's National Wetlands Inventory (https://www.fws.gov/wetlands/data/mapper.html).

Aerial photography shows the historical streambed of the tributary disrupting the landscaped lawn area. Rather than continuing to impede its natural flow, the EPA encourages taking action in accordance with EISA Section 438, which requires restoration, to the maximum extent practicable, of the predevelopment hydrology of the property (https://www4.eere.energy.gov/femp/requirements/laws_and_requirements/predevelopment_hydrology_facility).

The EPA appreciates the opportunity to provide input on the proposed solar PV system for the East Campus in Tuskegee. Please provide us with one hardcopy and one electronic (as a PDF via email) of the draft EA when it becomes available. If you have any questions about our comments, please contact me at (404) 562-9261 or via

email at gates.kim@epa.gov.

Sincerely,

Kim Gates

Kim Gates, Environmental Engineer
NEPA Program Office
USEPA Region 4 – RCR Division
61 Forsyth Street SW
Atlanta, GA 30303-8960

cc: Christopher Rua/Potomac-Hudson Engineering

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

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2400 Hospital Road
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March 7, 2019

Ms. Mary S. Walker
Acting Regional Administrator
United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Ms. Walker,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with the United States Environmental Protection Agency, Region 4 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

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We respectfully ask that you respond in writing to this request within 30 days to enable us to complete this phase of the project within the scheduled timeframe. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

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Potomac-Hudson Engineering, Inc.
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Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

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Maps

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Figure 2. Proposed PV System Location

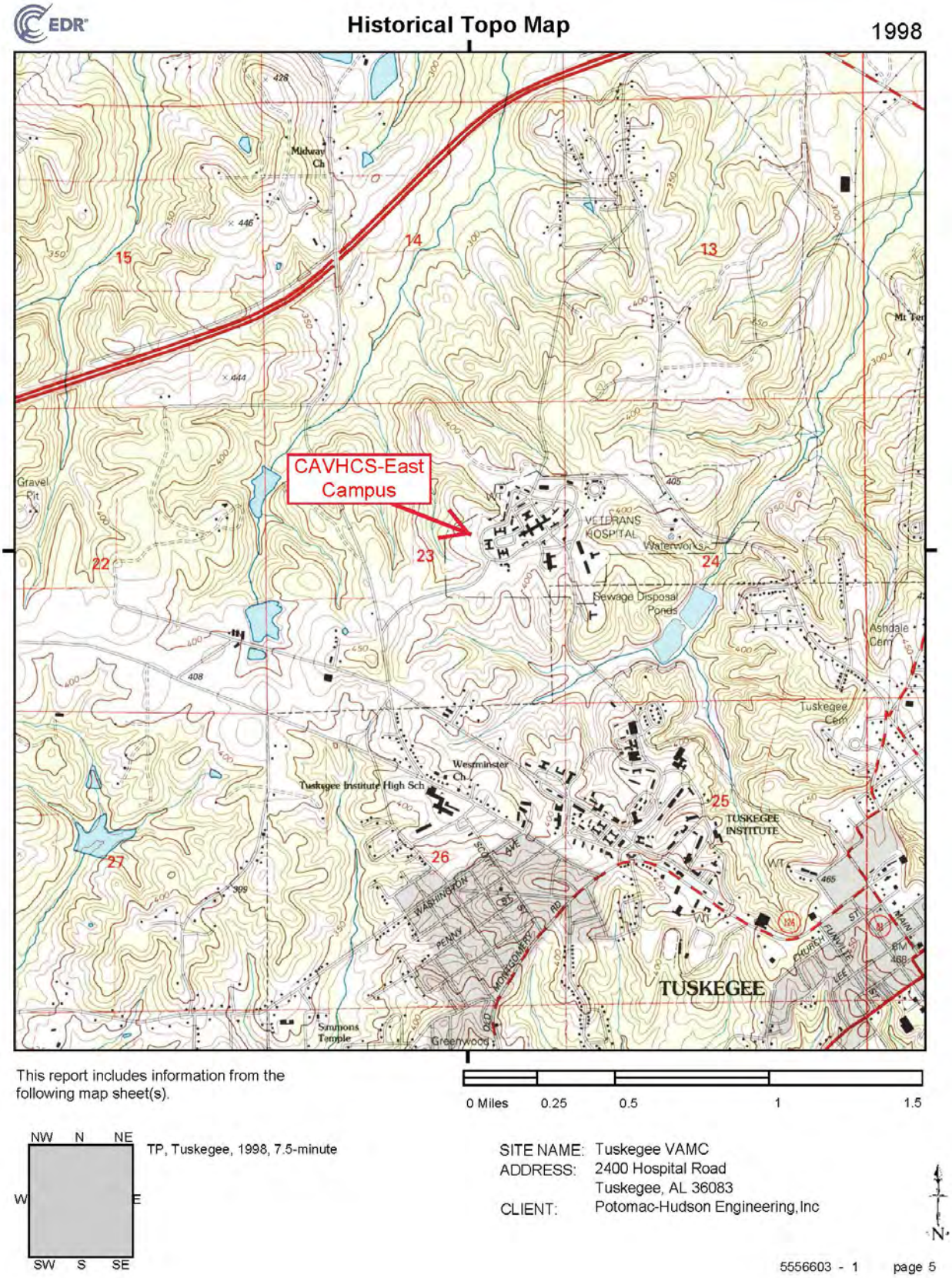

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

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Figure 1. PV System Layout Details

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June 27, 2019

Ms. Mary S. Walker
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United States Environmental Protection Agency, Region 4
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61 Forsyth Street, SW
Atlanta, GA 30303-8960

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Environmental Assessment for Proposed Solar Photovoltaic System

Dear Ms. Walker,

The U.S. Department of Veterans Affairs (VA) has prepared a Draft Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to notify the U.S. Environmental Protection Agency, Region 4 of changes to the Proposed Action that have occurred since initiation of consultation in March 2019 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by these changes. Table 1 compares elements of the original Proposed Action as described in the March 2019 scoping letter to the updates project description as presented in the Draft EA.

Table 1. Summary of Changes to the Proposed Action

Project Aspect	**Original Proposed Action (as described in March 2019 scoping letter)**	**Revised Proposed Action (as described in June 2019 Draft EA)**
Number of arrays (or sub-arrays)	1	2
Number of panels	864	2,968
Total area of PV array(s)	1 acre	3.2 acres
System size	250 kilowatts	900 kilowatts
Annual output	487.7 megawatt hours	1,782 megawatt hours
Length of trenching (subsurface electrical lines)	400 feet	1,010 feet
Ground surface prep	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

Attachment A contains copies of the initial consultation letter and the U.S. EPA's response, received April 23, 2019. A copy of the Draft EA, including revised figures depicting the updated PV arrays, is enclosed for your review. In order to address the concerns expressed in your agency's response letter, the Draft EA now includes additional details regarding the decision to install ground-mounted PV arrays instead of rooftop-mounted arrays and summarizes mitigation measures that would be implemented to reduce stormwater runoff and impacts to surface water.

We respectfully ask that you respond in writing within 30 days regarding any new resources that could be affected under the revised Proposed Action. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Prior Consultation Documents

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 7, 2019

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. Gandy,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with Macon County and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 488 megawatt hours (MWh) of energy, or approximately 4 percent of the CAVHCS-East Campus’s current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location . All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we are preparing an EA that will evaluate the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs’ Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We seek your input into the NEPA process concerning any environmental issues or concerns your agency may have on the potentially affected area, as referenced above and depicted in Attachments A and B. Data that you

make available will provide valuable and necessary input into the NEPA analytical process. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the EA. A list of agencies contacted as part of this NEPA process is included in Attachment C.

We respectfully ask that you respond in writing to this request within 30 days to enable us to complete this phase of the project within the scheduled timeframe. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Maps
Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

Attachment A
Maps

Figure 1. Project Site Location Map

Figure 2. Proposed PV System Location

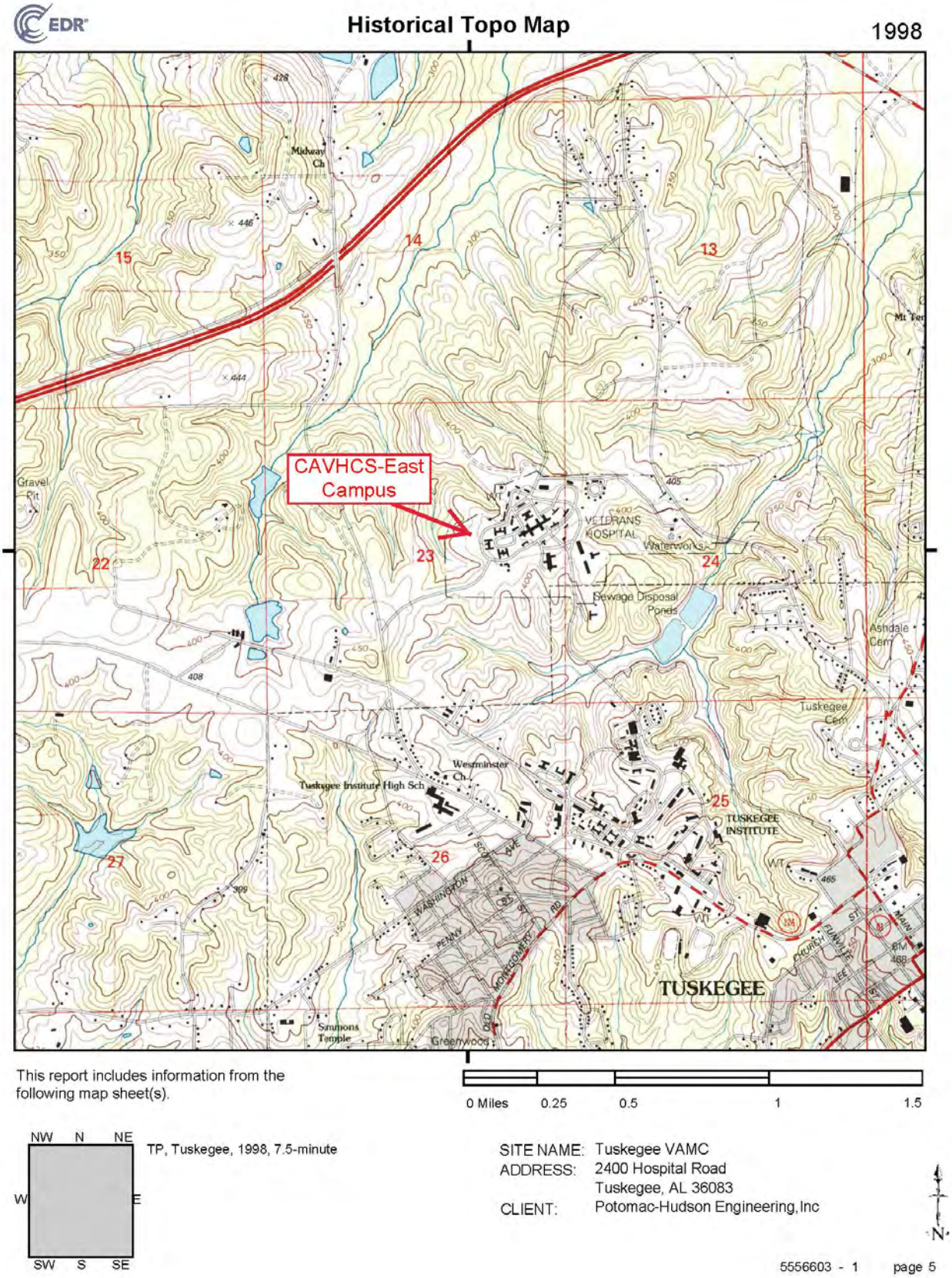

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

Figure 1. PV System Layout Details

Attachment C
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
Mr. Bill Pearson
Field Supervisor
1208 Main Street
Daphne, AL 36526

Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
468 South Perry Street
Montgomery, AL 36104

Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
P.O. Box 301463
Montgomery, AL 36130

Alabama Department of Conservation and Natural Resources
Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
64 N. Union Street
Montgomery, AL 36130

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, AL 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
Tuskegee, AL 36083

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

June 27, 2019

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

Dear Mr. Gandy,

The U.S. Department of Veterans Affairs (VA) has prepared a Draft Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to notify Macon County of changes to the Proposed Action that have occurred since initiation of consultation in March 2019 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by these changes. Table 1 compares elements of the original Proposed Action as described in the March 2019 scoping letter to the updated project description as presented in the Draft EA. Attachment A, Figure 2 and Attachment B, Figure 1 depict the current Proposed Action.

Table 1. Summary of Changes to the Proposed Action

Project Aspect	**Original Proposed Action (as described in March 2019 scoping letter)**	**Current Proposed Action (as described in June 2019 Draft EA)**
Number of arrays (or sub-arrays)	1	2
Number of panels	864	2,968
Total area of PV array(s)	1 acre	3.2 acres
System size	250 kilowatts	900 kilowatts
Annual output	487.7 megawatt hours	1,782 megawatt hours
Length of trenching (subsurface electrical lines)	400 feet	1,010 feet
Ground surface preparation	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system consisting of two connected PV arrays. The PV arrays, which will be approximately 3.2 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. PV sub-array #1 would be located on an approximately 1.3-acre area on the north side of the project area, while PV sub-array #2 would occupy an approximately 1.9-acre area to the south. Construction would be expected to last approximately 6 months.

The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The

CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 1,782 megawatt hours (MWh) of energy, or approximately 15 percent of the CAVHCS-East Campus’s current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV arrays would be connected to each other via a 510-foot underground electrical line. A second buried electrical conduit, approximately 500 feet in length, would also extend from PV sub-array #1 to a pad-mounted switch adjacent to Building 69. All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we prepared a Draft EA that evaluates the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs’ Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We respectfully ask that you respond in writing within 30 regarding any new resources that could be affected under the revised Proposed Action. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Maps
Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

Attachment A
Maps

Figure 1. Project Site Location Map

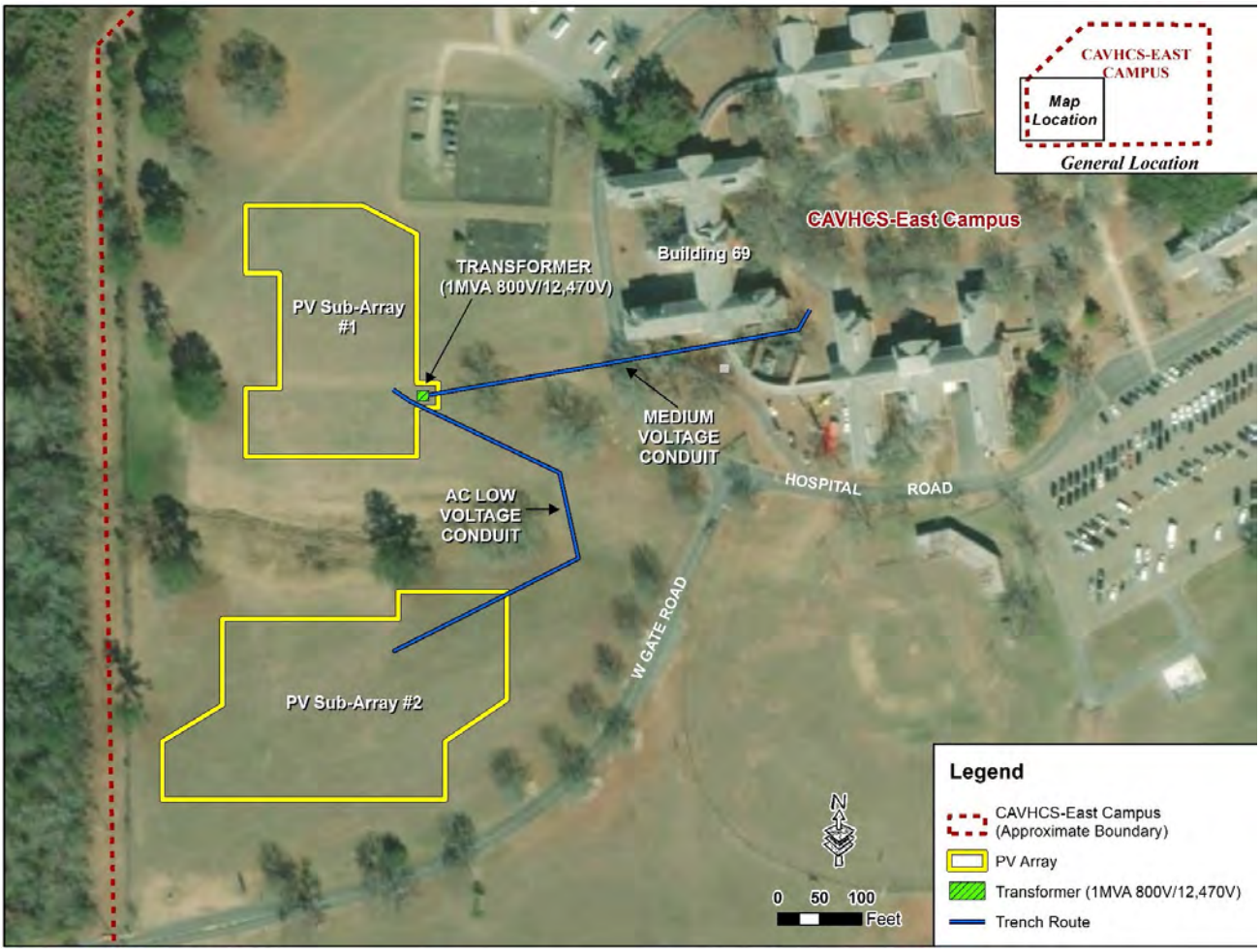

Figure 2. Proposed PV System Location

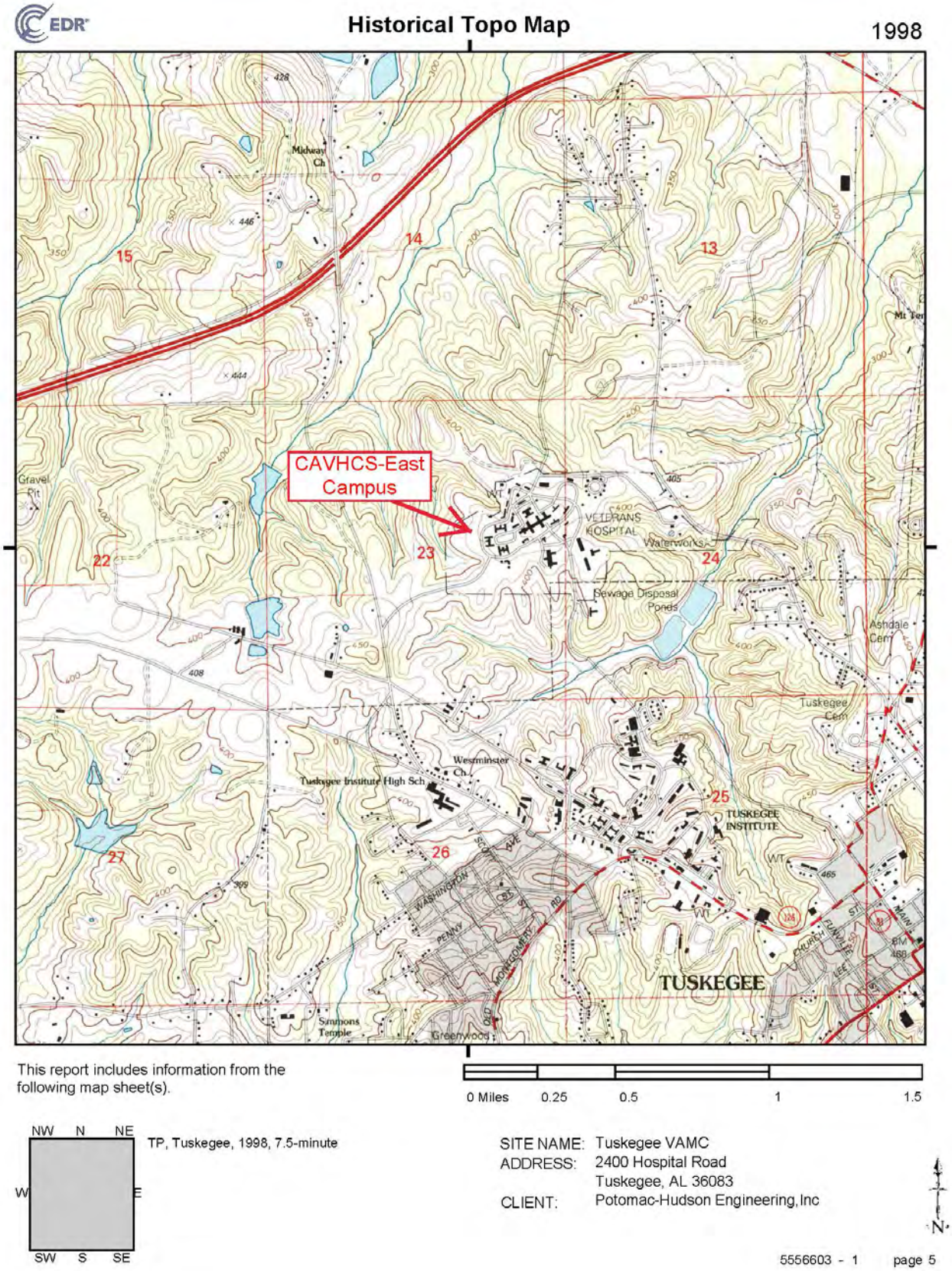

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

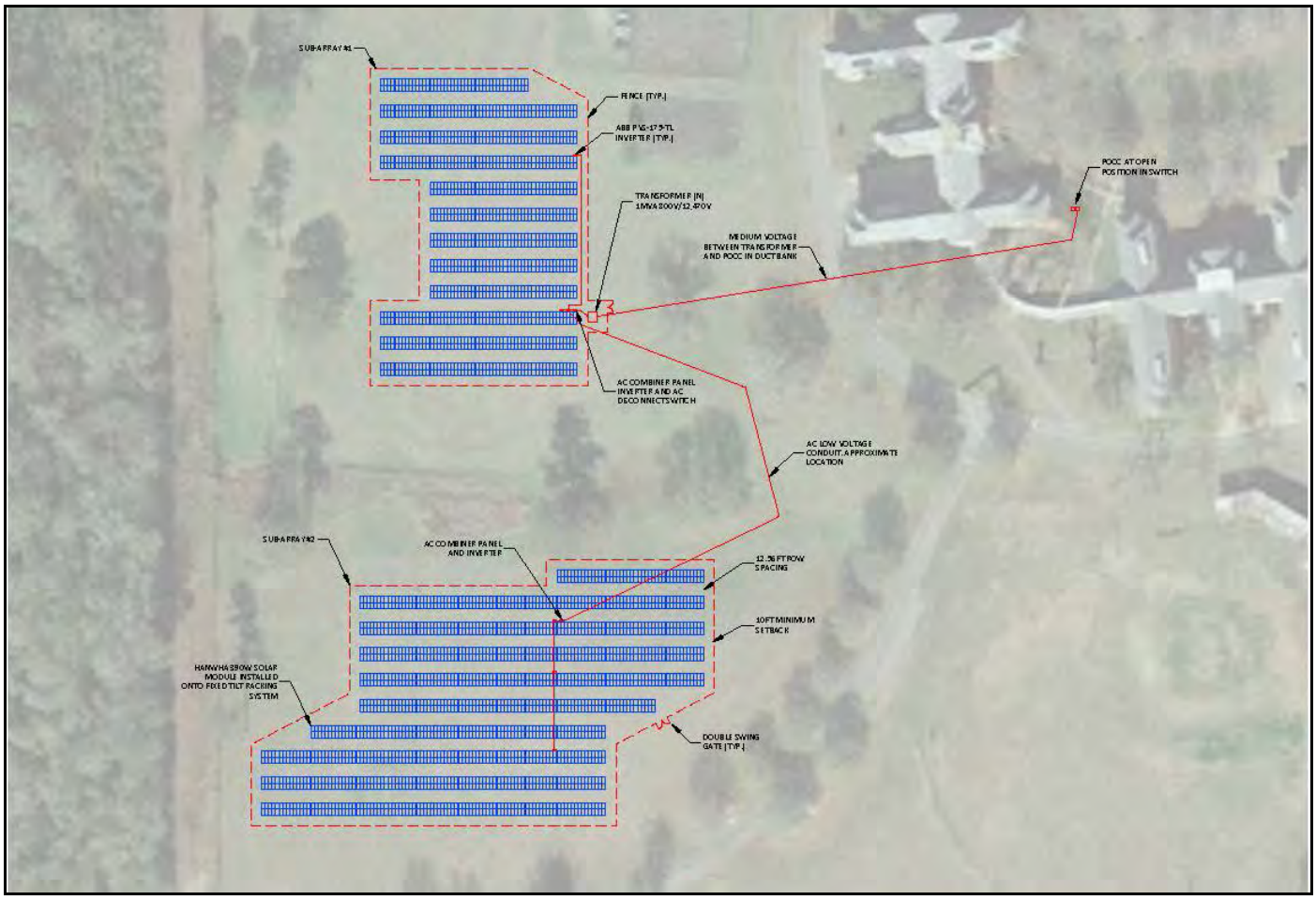

Figure 1. PV Layout Details

Attachment C
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
Mr. Bill Pearson
Field Supervisor
1208 Main Street
Daphne, AL 36526

Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
468 South Perry Street
Montgomery, AL 36104

Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
P.O. Box 301463
Montgomery, AL 36130

Alabama Department of Conservation and Natural Resources
Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
64 N. Union Street
Montgomery, AL 36130

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, AL 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

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Poarch Band of Creek Indians
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DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 7, 2019

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

To Whom it May Concern,

The U.S. Department of Veterans Affairs (VA), is considering a project that involves the construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located in Tuskegee, Alabama.

Potomac-Hudson Engineering, Inc. (PHE) is preparing an Environmental Assessment (EA) for this proposed action as required under the National Environmental Policy Act. The purpose of this letter is to initiate consultation with the Poarch Band of Creek Indians, and to request information on any Native American resources that may be affected by the proposed project.

The Facility is located in Rapides Parish at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The PV system, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69 (Attachment A, Figure 2). Construction of the PV system would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location. Construction would be expected to last approximately 6 months.

For questions or additional information, please contact Mr. Lee Jernigan, Energy Management Engineer at the CAVHCS-East Campus, at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874. He can also be reached by email at Lee.Jernigan@va.gov.

Sincerely,

Lee Jernigan

Attachment A. Maps

Attachment A
Maps

Figure 1. Project Site Location Map

Figure 2. Proposed PV System Location

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

June 27, 2019

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

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The purpose of this letter is to notify the Poarch Band of Creek Indians of changes to the Proposed Action that have occurred since initiation of consultation in March 2019 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by these changes. Table 1 compares elements of the original Proposed Action as described in the March 2019 scoping letter to the updated project description as presented in the Draft EA.

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For questions or additional information, please contact Mr. Lee Jernigan, Energy Management Engineer at the CAVHCS-East Campus, at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874. He can also be reached by email at Lee.Jernigan@va.gov.

Sincerely,

Medical Center Director

Attachment A. Maps

Attachment A
Maps

Figure 1. Project Site Location Map

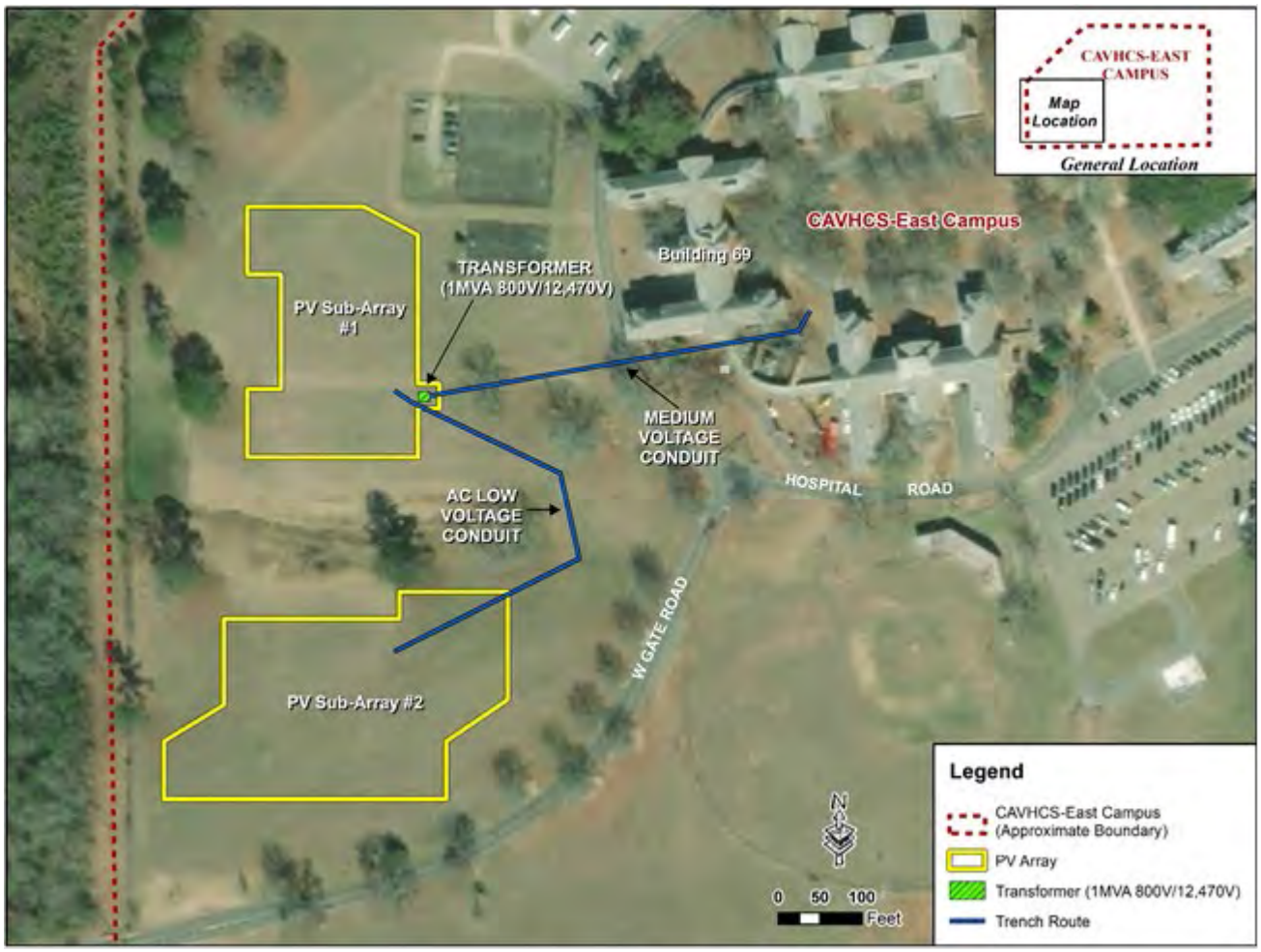

Figure 2. Proposed PV System Location

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

March 7, 2019

U.S. Fish and Wildlife Service, Region 4
1875 Century Boulevard, NE Suite 400
Atlanta, GA 30345

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

To Whom it May Concern,

The U.S. Department of Veterans Affairs (VA), is preparing an Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to initiate consultation with the Alabama Ecological Services Field Office of the U.S. Fish and Wildlife Service and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by this project.

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system. The PV array, which will be approximately 1.01 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. Construction of the Proposed Action would require minimal ground disturbance consisting of the removal of approximately 4 inches of topsoil, and placement of a vegetation barrier and gravel base. Construction would be expected to last approximately 6 months. The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26’ 42.3”N and longitude of 85° 42’ 47.4”W.

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The proposed PV system would be connected via underground utilities to a pad-mounted switchgear unit located adjacent to the southwest corner of Building 69, approximately 400 feet from the proposed PV system location . All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we are preparing an EA that will evaluate the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs’ Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We seek your input into the NEPA process concerning any of the following specific environmental issues or concerns your agency may have on the potentially affected areas, as referenced above and depicted in Attachments A and B:

- Federal- or state-listed threatened or endangered species, any species proposed for such listing, or critical habitat for such species that may occur within a 1-mile radius of the proposed site.
- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues.
- Natural resource issues.
- Traffic, noise, or socioeconomic concerns.
- Air quality concerns.
- Additional environmental, cultural, land use, or socioeconomic information or concerns your agency may have with regard to the referenced sites.
- Data concerning any present or reasonably foreseeable future actions in the vicinity of the CAVHCS-East Campus that could contribute to cumulative effects.

Data that you make available will provide valuable and necessary input into the NEPA analytical process. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the EA. A list of agencies contacted as part of this NEPA process is included in Attachment C.

We respectfully ask that you respond in writing to this request within 30 days to enable us to complete this phase of the project within the scheduled timeframe. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

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Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

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Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

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Maps

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Figure 2. Proposed PV System Location

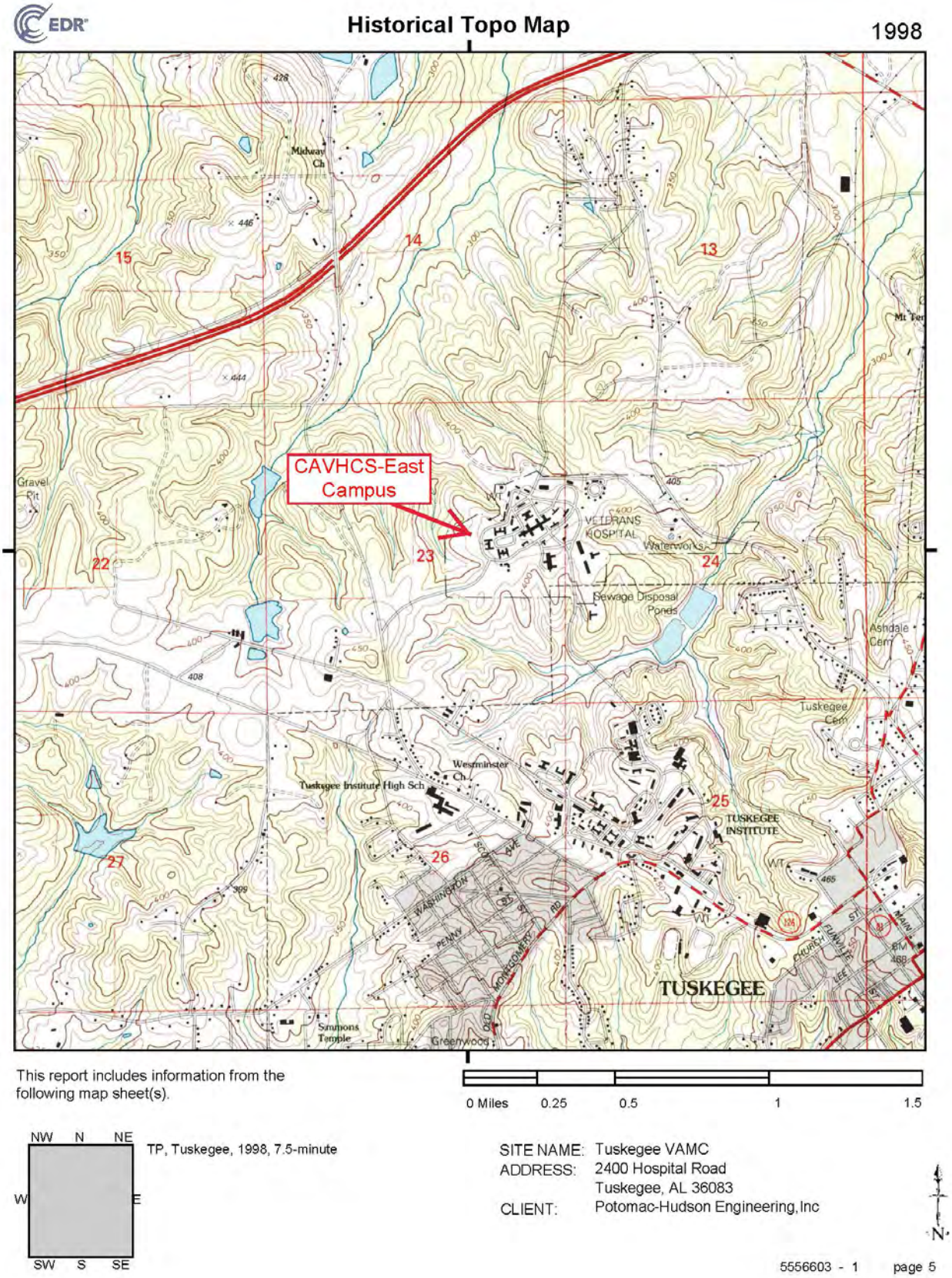

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

Figure 1. PV System Layout Details

Attachment C
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Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
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Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
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Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
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Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, AL 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
Tuskegee, AL 36083

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

DEPARTMENT OF VETERANS AFFAIRS
Central Alabama
Veterans Health Care System

West Campus
215 Perry Hill Road
Montgomery AL 36109

East Campus
2400 Hospital Road
Tuskegee AL 36083

June 27, 2019

U.S. Fish and Wildlife Service, Region 4
1875 Century Boulevard, NE Suite 400
Atlanta, GA 30345

RE: Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus
Environmental Assessment for Proposed Solar Photovoltaic System

To Whom it May Concern,

The U.S. Department of Veterans Affairs (VA) has prepared a Draft Environmental Assessment (EA) for the proposed construction and operation of a ground-mounted solar photovoltaic (PV) system at the Central Alabama Veterans Affairs Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Macon County, Alabama (see Attachment A, Figure 1). The purpose of this letter is to notify the USFWS, Region 4 Office, of changes to the Proposed Action that have occurred since initiation of consultation in March 2019 and to request information on any resources within the vicinity of the CAVHCS-East Campus potentially affected by these changes. Table 1 compares elements of the original Proposed Action as described in the March 2019 scoping letter to the updated project description as presented in the Draft EA. Attachment A, Figure 2 and Attachment B, Figure 1 depict the current Proposed Action.

Table 1. Summary of Changes to the Proposed Action

Project Aspect	**Original Proposed Action (as described in March 2019 scoping letter)**	**Current Proposed Action (as described in June 2019 Draft EA)**
Number of arrays (or sub-arrays)	1	2
Number of panels	864	2,968
Total area of PV array(s)	1 acre	3.2 acres
System size	250 kilowatts	900 kilowatts
Annual output	487.7 megawatt hours	1,782 megawatt hours
Length of trenching (subsurface electrical lines)	400 feet	1,010 feet
Ground surface preparation	Gravel with vegetation barrier	Alternative methods to allow for infiltration/reduced runoff

The proposed PV system (i.e., the Proposed Action) includes the construction and operation of one ground-mounted system consisting of two connected PV arrays. The PV arrays, which will be approximately 3.2 acres in area, would be installed on a landscaped lawn area located on the west side of the campus, west of Building 69. PV sub-array #1 would be located on an approximately 1.3-acre area on the north side of the project area, while PV sub-array #2 would occupy an approximately 1.9-acre area to the south. Construction would be expected to last approximately 6 months.

The CAVHCS-East Campus, as shown in Attachment A, Figure 2, is located within a sparsely developed area northwest of the City of Tuskegee. Wooded, primarily undeveloped land surrounds the campus on all sides. The CAVHCS-East Campus is situated at an approximate latitude of 32° 26' 42.3"N and longitude of 85° 42' 47.4"W.

If constructed as shown in Attachment A, Figure 2, and Attachment B, the proposed PV system would produce an estimated output of approximately 1,782 megawatt hours (MWh) of energy, or approximately 15 percent of the CAVHCS-East Campus's current annual electrical consumption. The location of the proposed PV system would be sited to avoid shadows cast by trees or existing adjacent buildings, and the panels would be tilted to maximize energy production but still keep a low profile to minimize visibility from nearby areas.

The proposed PV arrays would be connected to each other via a 510-foot underground electrical line. A second buried electrical conduit, approximately 500 feet in length, would also extend from PV sub-array #1 to a pad-mounted switch adjacent to Building 69. All electricity produced by the proposed PV system would be consumed onsite; no electricity produced by the Proposed Action would be released to the existing offsite utility grid.

As this Proposed Action is federally funded, we prepared a Draft EA that evaluates the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (32 U.S. Code [USC] §4321, *et seq*.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs' Actions*); as well as the VA *NEPA Interim Guidance for Projects* (2010).

We respectfully ask that you respond in writing within 30 regarding any new resources that could be affected under the revised Proposed Action. Your response will become part of our written record and included within the associated NEPA documentation. Please send your written response to the following address:

Mr. Lee Jernigan
Energy Management Engineer
CAVHCS-East Campus
2400 Hospital Road
Tuskegee, Alabama 36083

If you have any concerns or require additional information, please call Mr. Jernigan at (334) 727-0550 ext. 3970 or (334) 272-4670 ext. 4874; or by email at Lee.Jernigan@va.gov. Additionally, project information is available from Potomac-Hudson Engineering, Inc., the contractor responsible for preparing the EA. The Project Manager can be contacted at (732) 278-4279, via email at chrisr@phe.com, or at the following address:

Mr. Christopher Rua
Potomac-Hudson Engineering, Inc.
207 South Stevens Avenue, P.O. Box 7
South Amboy, New Jersey 08879

Thank you for your assistance in this matter.

Sincerely,

Lee Jernigan

Attachment A. Maps
Attachment B. Approximate Location and Design of the Proposed Action
Attachment C. List of Agencies Contacted

Attachment A
Maps

Figure 1. Project Site Location Map

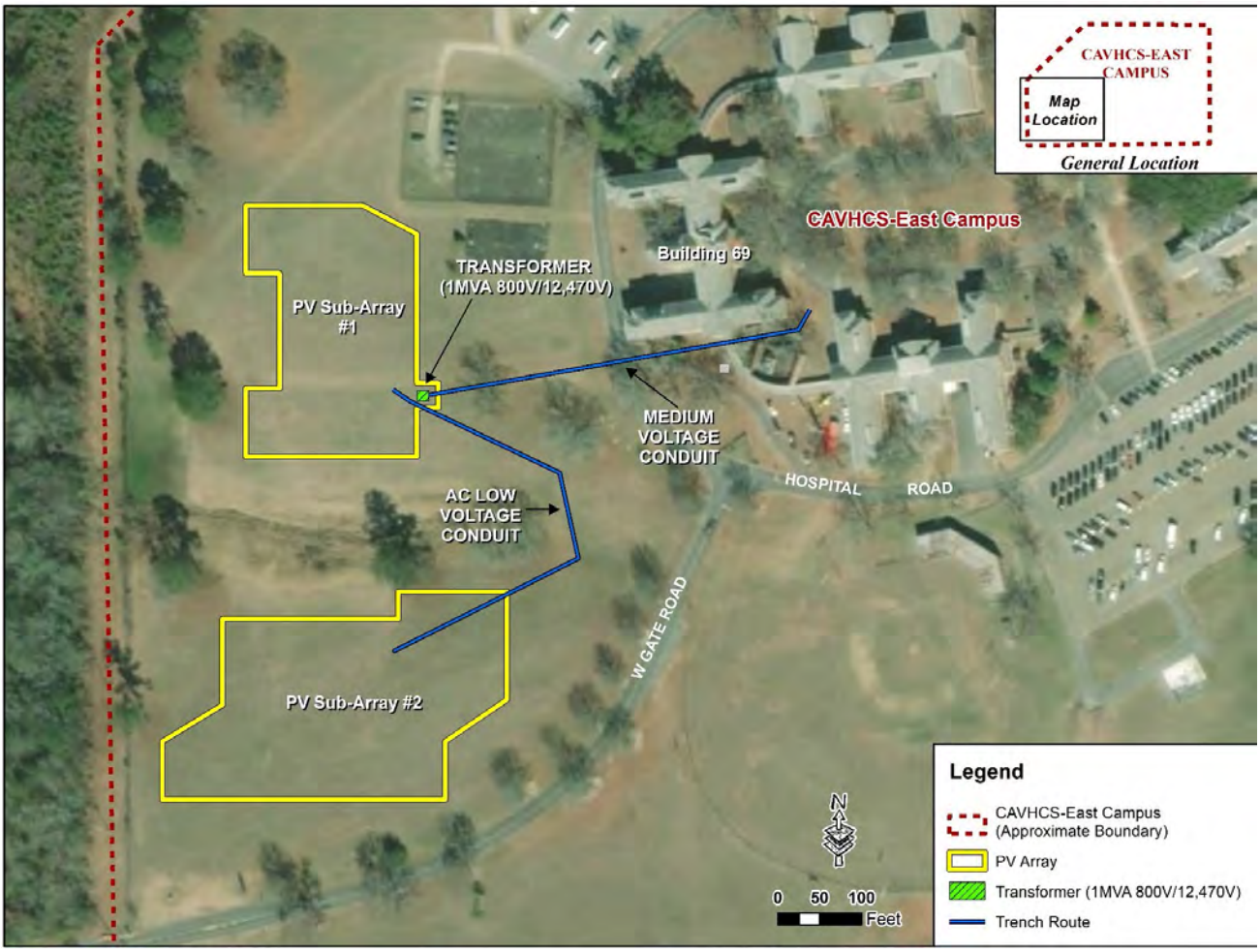

Figure 2. Proposed PV System Location

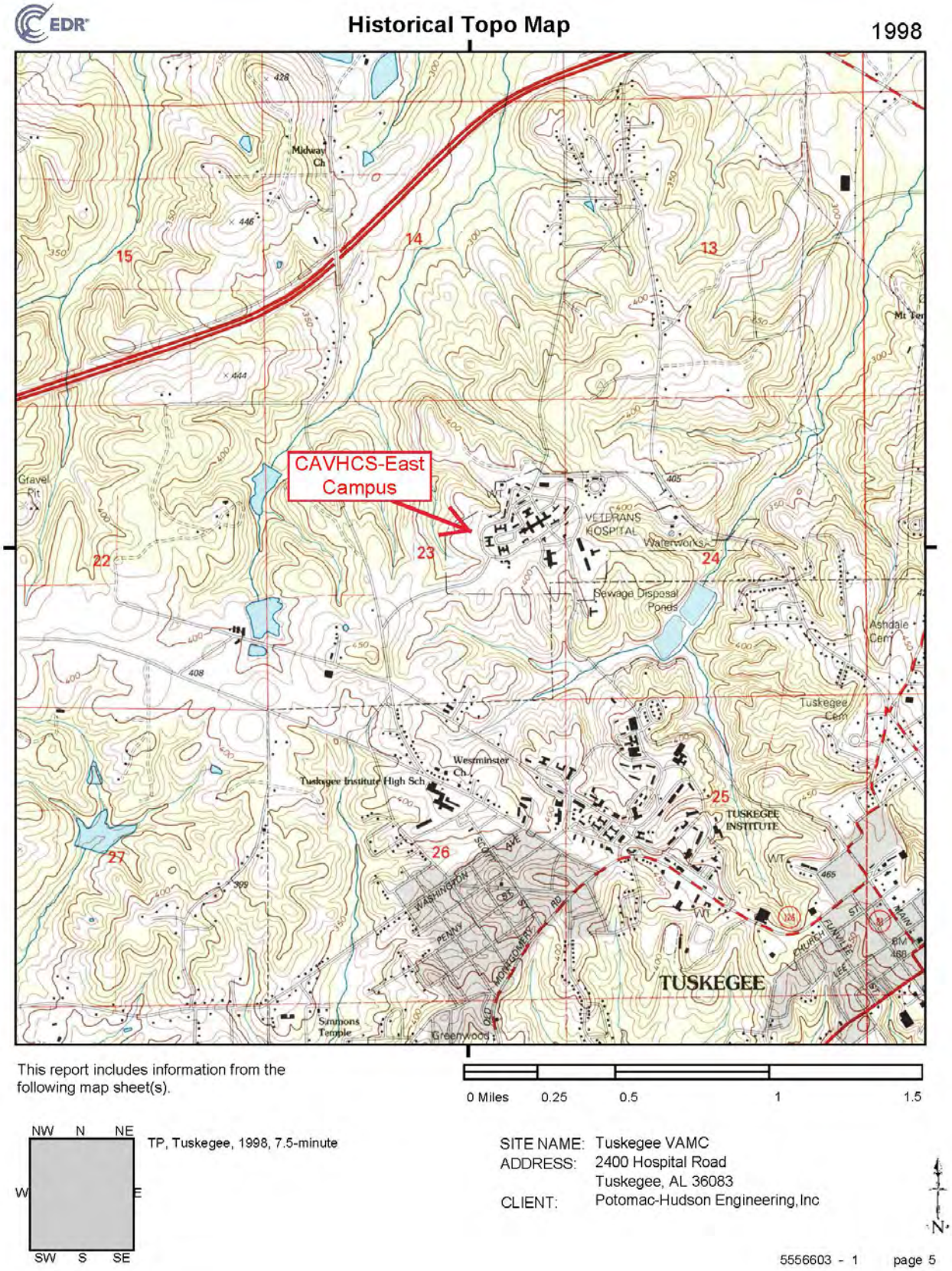

Figure 3. U.S. Geological Survey Topographic Map – Tuskegee Quadrangle (1998)

Attachment B
Approximate Location and Design of the Proposed Action

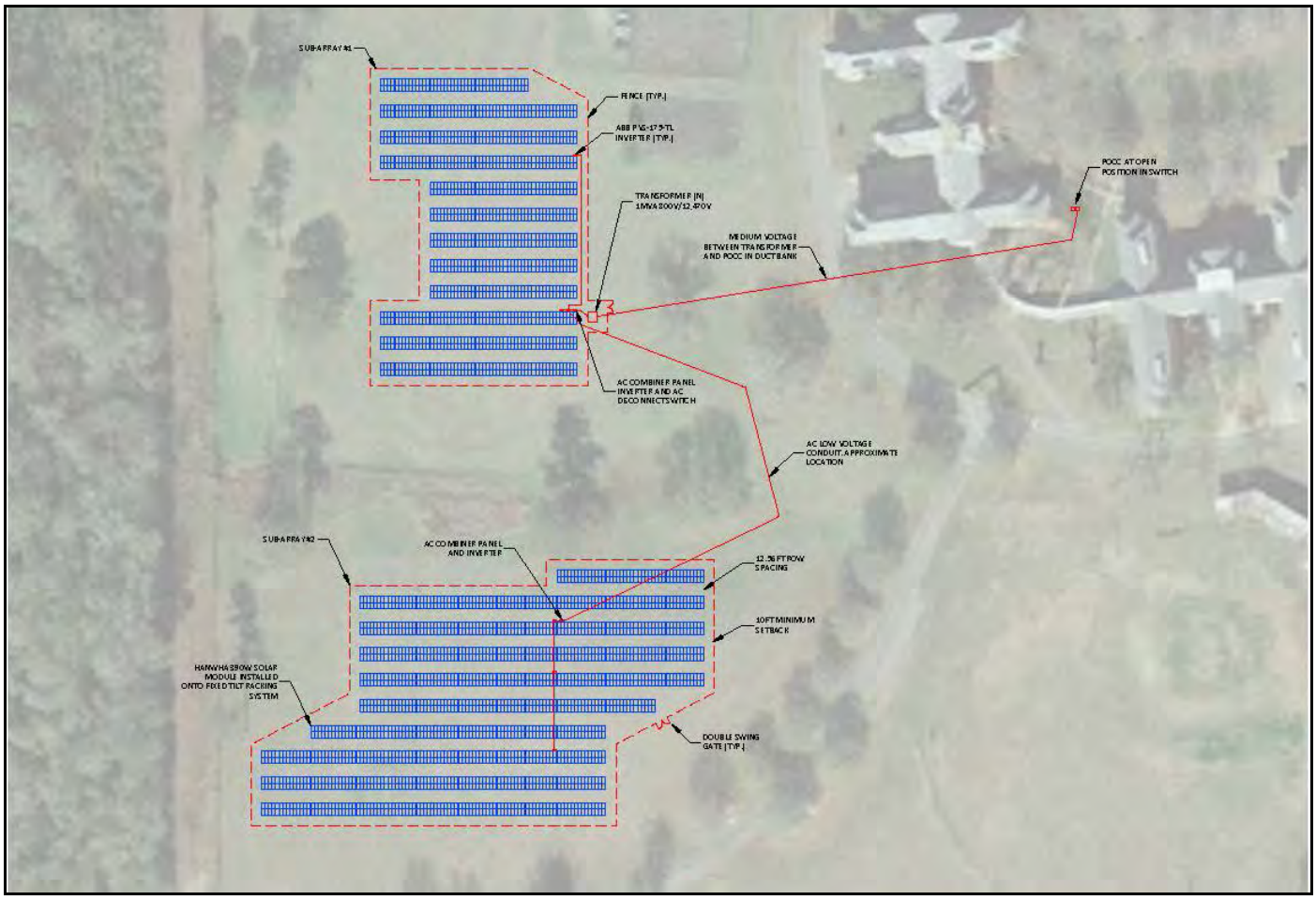

Figure 1. PV Layout Details

Attachment C
List of Agencies Contacted

United States Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
Ms. Mary S. Walker
Acting Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303

U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
Mr. Bill Pearson
Field Supervisor
1208 Main Street
Daphne, AL 36526

Alabama Historical Commission
Ms. Amanda Hill
Program Head, Review and Compliance
468 South Perry Street
Montgomery, AL 36104

Alabama Department of Environmental Management
Mr. Lance LeFleur
Director
P.O. Box 301463
Montgomery, AL 36130

Alabama Department of Conservation and Natural Resources
Mr. N. Gunter Guy, Jr.
Commissioner of Conservation
64 N. Union Street
Montgomery, AL 36130

Alabama Natural Heritage Program
Mr. Michael S. Barbour
GIS Analyst
1090 South Donahue Drive
Auburn University, AL 36849

Alabama Department of Transportation
Ms. Natasha Clay, Environmental Coordinator
Preliminary Engineering Division
1409 Coliseum Boulevard
Montgomery, AL 36110

Macon County
Mr. Iverson Gandy, Jr., JD
P.O. Box 830420
Tuskegee, AL 36083

City of Tuskegee
Mr. Bernard Houston, City Manager
101 Fonville Street
P.O. Box 830687
Tuskegee, AL 36083

Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

APPENDIX B

"ATTACHMENT C" AND CHECKLIST FROM THE VA ENVIRONMENTAL COMPLIANCE MANUAL

ATTACHMENT C - INFORMATION CONCERNING HISTORIC PRESERVATION

	YES	NO
Is this property on the National Register of Historic Places (NRHP)?	__X__	_____
Is this property on the official listing of properties eligible for the National Register of Historic Places? ***(Non-Contributing)***	__X__	_____
Is this property on the State Inventory of Historic Property?	__X__	_____
Has this property been surveyed:		
- By the state	__X__	_____
- By the holding agency if Federal property	__X__	_____
Did the survey include archaeology?	_____	_____
Are any nearby properties on the National Register of Historic Places (NRHP)? ***(Located within Historic District)***	__X__	_____
Is any nearby property on the State inventory?	__X__	_____
Has the State surveyed the nearby properties?	__X__	_____
If any nearby property is Federally owned, has the holding agency surveyed the property?	__X__	_____
Does the State Archaeologist have any registered sites on any nearby property?	_____	_____

For all buildings to be demolished: _____**N / A**_____.
- approximate age _____
- uses _____
- exact number of buildings _____

For cemeteries:		
- are remains still there or have they been moved? (This is especially important for former military posts.)	_____	_**N / A**___

For all military posts: date established _____**N / A**_____

Comments:

The Tuskegee Veterans Administration (VA) Hospital was completed in 1923 after the Tuskegee Institute agreed to donate 300 acres to the government to build the proposed hospital. The Tuskegee VA Hospital was the first VA hospital in the nation to be administered by an all African American medical staff. In 1992, the facility (then known as the Tuskegee Veterans Affairs Medical Center [VAMC]), was added to the Alabama Register of Landmarks and Heritage. In 2012, the CAVHCS-East Campus was designated a National Register of Historic Places (NRHP) historic district named the Tuskegee Veterans Administration Hospital as part of the United States Second Generation Veterans Hospitals Multiple Property Submission.

ENVIRONMENTAL ASSESSMENT SUMMARY (CHECKLIST)
DEPARTMENT OF VETERANS AFFAIRS

VA FACILITY: **Central Alabama VA Health Care System (CAVHCS) – East Campus**
PROJECT NO.: _____
PROJECT TITLE: **Proposed Photovoltaic/Solar Project**
ASSESSED BY: **PHE, Inc.**
STAFF RECOMMENDATION DATE:

RECOMMENDATION:

☐ DEFER ACTION
☒ EA COMPLETE (FONSI)
☐ SUPPLEMENTAL EA REQUIRED
☐ EIS REQUIRED

CHECKLIST FOR Preferred Action Alternative

KEY: S = SEVERE MI = MINIMAL M = MODERATE N = NONE

S	M	MI	N	ATTRIBUTES
☐	☐	☐	☒	AESTHETICS
☐	☐	☒	☐	AIR QUALITY
☐	☐	☐	☒	AVIATION/RADAR
☐	☐	☐	☒	COMMUNITY SERVICES
☐	☐	☒	☐	CULTURAL RESOURCES
☐	☐	☐	☒	ECONOMIC ACTIVITY (positive impacts only)
☐	☐	☐	☒	FLOODPLAINS, WETLANDS, COASTAL ZONE, ETC.
☐	☐	☐	☒	GEOLOGY AND SOILS
☐	☐	☒	☐	HISTORIC
☐	☐	☒	☐	HYDROLOGY AND WATER QUALITY
☐	☐	☐	☒	LAND USE
☐	☐	☐	☒	NOISE
☐	☐	☐	☒	POTENTIAL FOR GENERATING SUBSTANTIAL CONTROVERSY
☐	☐	☐	☒	REAL PROPERTY
☐	☐	☐	☒	RESIDENT POPULATION
☐	☐	☒	☐	SOLID/HAZARDOUS WASTE
☐	☐	☒	☐	TRANSPORTATION AND PARKING
☐	☐	☐	☒	UTILITIES (positive impacts only)
☐	☐	☐	☒	VEGETATION AND WILDLIFE
☐	☐	☐	☐	VISUAL RESOURCES
☐	☐	☐	☒	US ENVIRONMENTAL REGULATIONS

APPENDIX C

PUBLIC NOTICES AND COMMENTS

Notice of Availability

Draft Environmental Assessment of the Proposed Installation and Operation of a Solar Photovoltaic System at the Central Alabama Veterans Health Care System (CAVHCS) – East Campus

Pursuant to the requirements of the National Environmental Policy Act (NEPA), the Department of Veterans Affairs (VA) announces the preparation and availability of a Draft Environmental Assessment (EA) for the installation and operation of one ground-mounted solar photovoltaic (PV) system consisting of two connected PV arrays at the Central Alabama Veterans Health Care System (CAVHCS)-East Campus, 2400 Hospital Road, Tuskegee, Alabama 36083. As part of the EA, VA studied the impacts of the proposed project on the existing natural, cultural, and social environments.

The EA evaluates the Proposed Action, which is to allow a third-party entity (Ameresco, Inc.) to install and operate the PV system. The PV system would allow the VA to support energy mandates and requirements outlined by existing laws, statutes, and Executive Orders.

The EA is now available to the public for review and comment at the CAVHCS-East Campus Public Affairs Office (2400 Hospital Road, Tuskegee, Alabama 36083) for 30 days prior to final decision-making. A copy will also be maintained at the *Macon County-Tuskegee Public Library*. The document can also be downloaded at: www.centralalabama.va.gov.

For comments to be considered in the preparation of the Final EA, comments should be submitted on or before August 2, 2019, preferably by email to TuskegeePVEA@phe.com. Comments can also be sent via mail to the attention of Mr. Lee Jernigan, 2400 Hospital Road, Tuskegee, Alabama 36083.

APPENDIX D

"CONSTRUCTION EMISSIONS CALCULATIONS

Construction Emissions Calculations

Table A-1 Construction Equipment Use

Equipment Type	Number of Units	Days on Site	Hours Per Day	Operating Hours
Plate Compactors Composite	2	90	4	720
Trenchers Composite	2	25	8	400
Air Compressors Composite	4	90	4	1440
Cranes Composite	2	115	6	1380
Forklift Composite	2	90	4	720
Tractors/Loaders/Backhoes	2	90	4	720
Excavators Composite	1	65	4	260
Generator Sets Composite	3	90	4	1080
Other Construction Equipment Composite	1	65	4	260

Table A-2 Construction Equipment Emission Factors (lbs/hour)

Equipment	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Plate Compactors Composite	0.0263	0.0314	0.0050	0.0001	0.0012	0.0012	4.3138
Trenchers Composite	0.4317	0.4838	0.0995	0.0007	0.0364	0.0364	58.7133
Air Compressors	0.3100	0.3577	0.0526	0.0007	0.0213	0.0213	63.6073
Cranes Composite	0.3982	0.7236	0.0954	0.0014	0.0286	0.0286	128.6288
Forklift Composite	0.2166	0.1924	0.0345	0.0006	0.0085	0.0085	54.3958
Tractors/Loaders/Backhoes	0.3630	0.3019	0.0472	0.0008	0.0160	0.0160	66.7979
Excavators Composite	0.5140	0.4575	0.0787	0.0013	0.0214	0.0214	119.5797
Generator Sets Composite	0.2755	0.3483	0.0431	0.0007	0.0169	0.0169	60.9927
Other Construction Equipment Composite	0.3522	0.3972	0.0596	0.0013	0.0159	0.0159	122.5040

Source: CARB, 2007a. 2019 Efs

Table A-3 Construction Equipment Emissions (tpy)

Equipment	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Plate Compactors Composite	0.0095	0.0113	0.0018	0.0000	0.0004	0.0004	1.5530
Trenchers Composite	0.0863	0.0968	0.0199	0.0001	0.0073	0.0073	11.7427
Air Compressors	0.2232	0.2576	0.0379	0.0005	0.0153	0.0153	45.7973
Cranes	0.2747	0.4993	0.0658	0.0010	0.0197	0.0197	88.7538
Forklift Composite	0.0780	0.0693	0.0124	0.0002	0.0031	0.0031	19.5825
Tractors/Loaders/Backhoes	0.1307	0.1087	0.0170	0.0003	0.0058	0.0058	24.0473
Excavators Composite	0.0668	0.0595	0.0102	0.0002	0.0028	0.0028	15.5454
Generator Sets	0.1488	0.1881	0.0233	0.0004	0.0091	0.0091	32.9360
Other Construction Equipment Composite	0.0458	0.0516	0.0077	0.0002	0.0021	0.0021	15.9255
Total	**1.06**	**1.34**	**0.20**	**0.00**	**0.07**	**0.07**	**255.88**

Table A-4 Delivery of Equipment and Supplies

Number of Deliveries	5						
Number of Trips	2						
Miles Per Trip	30						
Weeks of Construction	25.2						
Total Miles	7560						
Pollutant	**CO**	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Emission Factor (lbs/mile)	0.01	0.01	0.00	0.00	0.00	0.00	2.85
Total Emissions (lbs)	64.80	68.06	9.87	0.20	2.83	2.21	21550.5
Total Emissions (tpy)	**0.03**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**10.78**

Source: CARB, 2007b. 2019 Efs

Table A-5 Surface Disturbance

TSP Emissions	80	lb/acre				
PM_{10}/TSP	0.45					
$PM_{2.5}$/PM_{10}	0.15					
Period of Disturbance	30	days				
Capture Fraction	0.5					
	Area [acres]	**TSP[lbs]**	**PM_{10}[lbs]**	**PM_{10}[tons]**	**$PM_{2.5}$[lbs]**	**$PM_{2.5}$[tons]**
Construction	3.43	8232	3704	1.85	278	0.14
Total	**3.43**	**8232**	**3704**	**1.85**	**278**	**0.14**

Sources: USEPA, 1995 and USEPA, 2005.

Table A-6 Worker Commutes

Number of Workers	20						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	132						
Total Miles	158400						
Pollutant	**CO**	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Emission Factor (lbs/mile)	0.00	0.00	0.00	0.00	0.00	0.00	1.10
Total Emissions (lbs)	747.36	69.25	86.57	1.70	15.08	9.91	175025.8
Total Emissions (tpy)	**0.37**	**0.03**	**0.04**	**0.00**	**0.01**	**0.00**	**87.51**

Source: CARB, 2007b. 2019 Efs

Table A-7 Total Construction Emissions (Tons per Year)

Activity/Source	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Construction Equipment	1.06	1.34	0.20	0.00	0.07	0.07	255.88
Delivery of Equipment and Supplies	0.03	0.03	0.00	0.00	0.00	0.00	10.78
~~**Paving Off Gasses**~~	~~0.00~~	~~0.00~~	~~0.000~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~
Surface Disturbance	0.00	0.00	0.00	0.00	1.85	0.14	0.00
Worker Commutes	0.37	0.03	0.04	0.00	0.01	0.00	87.51
Total Construction Emissions	**1.5**	**1.4**	**0.2**	**0.0**	**1.9**	**0.2**	**354.2**

APPENDIX E

DRAFT FINDING OF NO SIGNIFICANT IMPACT

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
DEPARTMENT OF VETERANS AFFAIRS
PROPOSED INSTALLATION AND OPERATION OF A PHOTOVOLTAIC (PV) SYSTEM
CENTRAL ALABAMA VETERANS HEALTHCARE SYSTEM (CAVHCS) – EAST CAMPUS
CITY OF TUSKEGEE, MACON COUNTY, ALABAMA

Introduction

A Final Environmental Assessment (EA), included herein by reference, was prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with the Department of Veterans Affairs (VA) proposed installation and operation of a ground-mounted solar photovoltaic (PV) system consisting of two connected PV arrays at the Central Alabama Veterans Health Care System (CAVHCS) – East Campus located at 2400 Hospital Road, Tuskegee, Alabama. Preparation of the EA was required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 *et seq*.), the Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and 38 CFR Part 26 (*Environmental Effects of the Department of Veterans Affairs Actions*).

1. Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to install and operate a renewable energy source, specifically a PV system, at the CAVHCS-East Campus in Tuskegee, Alabama, as well as to meet the goals and objectives of Federal energy requirements per the Energy Policy Act of 2005, Executive Order (EO) 13834, and the Energy Independence and Security Act of 2007 (EISA). As such, the Proposed Action is needed to assist the VA in achieving the goals and objectives of these federal energy requirements.

2. Description of the Proposed Action and Alternatives

Proposed Action

VA's Proposed Action is to direct Ameresco to install and operate one ground-mounted PV system at the CAVHCS-East Campus. The PV system would be operated by Ameresco for a period of 25 years during which the VA would pay for the project through the energy savings that are received as a result of the PV system. The PV system would provide electricity to the CAVHCS-East Campus, portions of which operate continually. VA chose an approximately 3-acre area west of Building 69 as the proposed location for the PV system based on site selection criteria discussed in Section 2.3.1. Figure 2 depicts the proposed site location within the CAVHCS-East Campus, while Figure 3 presents a rendering of the proposed PV system at its proposed location. The proposed PV system project is being implemented under the Energy Saving Performance Contract (ESPC) Program for Veterans Administration Medical Centers, which is currently being prepared and is expected to be finalized in 2019.

Alternatives Considered

The VA undertook a sequential planning and screening process, seeking reasonable alternatives for the Proposed Action. This process, described in the Final EA, included developing and applying site-specific screening criteria. Through this analysis, the VA identified that the Preferred Action Alternative was the only alternative that met all of the VA's screening criteria, as well as the purpose of and need for the Proposed Action. All of the other locations and alternative heating and energy systems evaluated or considered failed to meet the VA's screening criteria.

The Final EA examined in-depth two alternatives, the Preferred Action Alternative and the No Action Alternative, defined as follows:

- **Preferred Action Alternative (Proposed Action):** Under the Preferred Action Alternative, the VA would install and operate PV systems at the locations shown in Figure 2 of the EA and would implement the Proposed Action as described in Section 2.2. of the EA.
- **No Action Alternative:** Under the No Action Alternative, the Proposed Action would not be implemented. The CAVHCS-East Campus would continue to purchase all of its required

electricity from the utilities Board of Tuskegee. No additional renewable PV energy sources would be installed on the property. Under this scenario, the CAVHCS-East Campus would not contribute to the VA's ability to meet the requirements set forth in EO 13834, the EISA, and the Energy Policy Act of 2005.

While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, this alternative was retained to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required under the CEQ Regulations (40 CFR 1502.14).

3. Environmental Analysis

The Final EA evaluated potential direct, indirect, and cumulative effects of implementing these two alternatives to: aesthetics; air quality/GHGs; community services and utilities; cultural resources; water resources (floodplains, wetlands, watersheds, rivers, lakes, coastal zones, hydrology, and water quality); geology, topography and soils; land use; the noise environment; biological resources (vegetation, wildlife, and threatened and endangered species); socioeconomics (economy, population, housing, employment, Environmental Justice (EO 12898), Protection of Children (EO 13045), and emergency services); transportation and parking; and solid and hazardous waste.

Potential adverse effects in the areas of air quality/greenhouse gases; cultural resources; surface water resources; solid and hazardous wastes; and transportation and parking were identified within the Final EA's analysis. Based on the analysis contained in the Final EA, the VA determined that the construction and operation of the proposed PV system under the Preferred Action Alternative will not have significant adverse impacts, either individually or cumulatively, on the physical, biological, or human environments, provided the mitigation measures specified in the Final EA are implemented.

Under the No Action Alternative, the Proposed Action would not be implemented. The Final EA did not identify any significant adverse impacts either individually or cumulatively, on the physical, biological, or human environments. This alternative, however, would fail to meet the goals and objectives of the Federal energy requirements.

The EA also examined the potential cumulative effects of implementing each of the considered alternatives. This analysis found that implementation of the Preferred Action Alternative would not result in adverse cumulative impacts to any evaluated resource within the Proposed Action's Region of Influence.

Mitigation

The VA will implement mitigation measures to ensure any impacts are maintained at acceptable, less-than-significant levels, in accordance with the recommendations presented in the Final EA. The VA will also implement Best Management Practices (BMPs) and comply with applicable state and Federal regulatory requirements, as specified in the Final EA, to further minimize effects.

Air Quality: During construction, reasonable measures would be required to prevent unnecessary amounts of particulate matter (i.e., dust) from becoming airborne. Such precautions, typical of all VA construction projects at the VAMC, would include:

- Use of water for control of dust during construction operations, the grading of roads, and the clearing of land;
- Covering open equipment for conveying or transporting material likely to create objectionable air pollution when airborne; and,
- Promptly removing spilled or tracked dirt or other materials from paved streets.

Cultural Resources: The SHPO was consulted regarding impacts to cultural and historical resources; however, a final response from the SHPO has not been received as of the date of this EA. An initial response from the SHPO, requesting additional information about the project, was received on April 3. Although the EA concludes that no effect to cultural or historical resources is anticipated from the proposed action, if the SHPO determines the proposed action may have an adverse effect the VA will initiate formal consultation to mitigate these effects. A final determination by the SHPO must be received by the VA prior to construction of the proposed action.

Surface Water Resources: Under the Proposed Action, land disturbance of greater than one acre will occur. Therefore, Ameresco would be required to seek coverage under General NPDES Permit No.

ALR100000. A Notice of Intent (NOI) would be completed and submitted to ADEM in accordance with the permit requirements prior to any work beginning.

Under the requirements of the NPDES Permit, Ameresco must ensure that the construction contractor implements and maintains effective erosion and sediment controls and prepare a Construction Best Management Practices Plan (CBMPP) certified by a Qualified Credentialed Professional (QCP). A QCP or Qualified Credentialed Inspector (QCI) must conduct regular inspections of regulated construction activities to ensure effective erosion and sediment controls are being maintained. In certain circumstances, the QCI or QCP must also monitor construction site discharges for turbidity.

In order to comply with the requirements of the NPDES Permit and provide protection to the onsite drainage swale, BMPs would be implemented during construction to reduce stormwater and sediment runoff to the extent practicable in accordance with the NPDES permit requirements. Such BMPs may include:

- Installing appropriate silt fencing and/or other appropriate erosion-control measures around the perimeter of the construction area footprint(s) prior to construction, notably on downslope areas.
- Using straw bales as and where necessary to further minimize offsite erosion potential.
- Seeding the unpaved disturbed area with native vegetation immediately upon the completion of construction.

Any spills occurring during construction would be managed using appropriate pollution prevention control measures.

Section 438 of the EISA establishes strict stormwater runoff requirements for federal development and redevelopment projects with a footprint that exceeds 5,000 square feet. The intent of Section 438 is to require federal agencies to develop and redevelop applicable facilities in a manner that maintains or restores stormwater runoff to the maximum extent technically feasible using a combination of site planning, design, construction, and maintenance strategies. The goal of EISA is to maintain or restore the pre-development site hydrology during the development or redevelopment process.

Prior to construction activities, VA, through Ameresco, would ensure that all construction and development plans take into account the requirements of EISA by designing the project in a manner that maintains or restores stormwater runoff to pre-disturbance conditions to the maximum extent technically feasible. This would include requiring the construction contractor to utilize one or more of the following GI/LID tools:

- Not allowing the use of gravel or a vegetation barrier beneath the solar PV arrays.
- Replacing any topsoil removed during construction to the extent practicable.
- Planting, promoting, and maintaining low-growth vegetation beneath the solar PV arrays.
- Installing a buffer strip just beyond the most downgradient row of panels to retain stormwater runoff and allow for greater infiltration and/or evapotranspiration rates.

In order to maintain limited plant growth beneath the panels, a combination of approaches must be considered. This includes re-planting the area with specific seed mixtures that include only low-growth vegetation; using mechanical lawn mowers and weed-trimmers where access is feasible; and performing manual weed removal periodically as needed.

Solid and Hazardous Waste. During construction, a small increase in construction vehicle traffic would increase the likelihood for release of vehicle operating fluids (e.g., oil, diesel, gasoline, antifreeze, etc.) and maintenance materials. Maintenance activities over the long-term could wash lubricants, etc. from the PV systems and into the buildings' drainage systems. Implementation of standard construction BMPs would serve to ensure this impact is minimized.

At the end of its useful life (estimated to be 25 years), the PV system would be decommissioned. If waste PV panels are sent to a municipal waste incinerator, the heavy metals would gasify and could be released to the atmosphere. If waste PV systems are sent to a municipal solid waste landfill for disposal, they have the potential to leach heavy metals into the groundwater (Markvart and Castaner, 2003). To avoid such adverse effects, the VA would recycle or dispose of the waste PV system in compliance with all existing federal, state, and local regulations governing the characterization and

disposal of waste; therefore, no significant adverse effects associated with the disposal of the PV system are expected.

Transportation: The VA will implement traffic-control BMPs during construction to minimize onsite traffic delays or issues. Use of Parking Lot N (preferred option) as a lay down area for construction would minimize parking and traffic issues onsite when compared with Parking Lot J (alternate option).

4. Regulations

The Proposed Action will not violate NEPA, the CEQ Regulations, 38 CFR Part 26, or other Federal, state, or local environmental regulations. This will be achieved by implementing the measures summarized above.

5. Commitment to Implementation

The VA affirms their commitment to implement the Final EA and FONSI in accordance with NEPA, the CEQ Regulations, and 38 CFR Part 26. Implementation is dependent on funding. The VA will ensure that adequate funds are requested in future years' budget(s) to achieve the goals and objectives set forth in the Final EA and FONSI, and to fund the commitments described above.

6. Agency and Public Involvement

The VA has attempted to consult with appropriate Federal, state, and local regulatory agencies, as well as with federally recognized Native American tribes identified in the area, including potentially the Preferred Action Alternative site. This consultation is documented in the Final EA. Concerns expressed by pertinent regulatory agencies, if any, which have been received as of the date of this report have been addressed in the Final EA.

In addition, the VA had published the Draft EA for review at the Macon County-Tuskegee Public Library (302 South Main Street, Tuskegee, Alabama 36083), for a 30-day public review and comment period by interested parties. No substantive comments were provided during the public review process.

7. Finding of No Significant Impact

After careful review of the Final EA, I have concluded that implementation of the Preferred Action Alternative would not generate significant controversy or have a significant impact on the quality of the human or natural environment.

Therefore, per the NEPA, the CEQ Regulations, and 38 CFR Part 26, I am signing this FONSI. This analysis fulfills the requirements of the NEPA and the CEQ Regulations. An Environmental Impact Statement will not be prepared.

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Date

Lee Jernigan
Energy Management Engineer
Central Alabama Veterans Health Care System