

SCOPE OF WORK

ARCHAEOLOGICAL SURVEY JOHNSON CITY & MT. CARMEL ARMED FORCES READINESS CENTERS (AFRC'S) TENNESSEE ARMY NATIONAL GUARD

A. INTRODUCTION

The Tennessee Army National Guard (TNARNG), as an agent of the National Guard Bureau (NGB), is responsible for the prudent management of cultural resources on all its properties. All TNARNG properties are managed in accordance with the various federal and state laws as delineated by the *Army National Guard Cultural Resources Handbook 2013* and the 5-year Integrated Cultural Resources Management Plan (ICRMP) 2024 respectively, which guides all activities that may impact cultural resources on a site. Survey data and associated maps are used for mission planning and cultural resources management, in addition to a variety of other planning purposes. Up to date baseline information on archaeological and architectural characteristics are essential to informed cultural resources management.

The properties to be surveyed are as follows: 103.22 acres at Johnson City Army Aviation Support Facility (AASF) at 253 Don May Drive in Johnson City, Washington County, TN; and 33.22 acres at Mt. Carmel Armed Forces Readiness Center (AFRC) at W. Stone Rd. in Mt. Carmel, Hawkins County, TN. The city of Johnson City, the town of Mt. Carmel, and their surrounding areas are in the gently rolling foothills of the Appalachian Mountains and possess a rich history from the contact period, to being a part of the proposed State of Franklin, to early state formation and colonial history. Johnson City has gone on to become the seventh largest city in the state with its growth first stemming from heavy railroad traffic beginning in the 1850's later including excursion adventures into the Blue Ridge Mountains, to the music scene taking off beginning in the 1920's, as well as becoming a major hub for bootlegging whiskey during the prohibition era and capped off in contemporary times largely fueled by East Tennessee State University (ETSU) and its medical corridor.

These state-owned properties have never been surveyed for archaeological resources and there are no architectural resources that have been evaluated for the National Register of Historic Places (NRHP) as well. The goal of this survey is to identify archaeological sites or features, if present, which will warrant further protection under applicable federal and state laws by delineating the site boundaries and determining if any of the sites discovered are eligible for the NRHP.

In order to be eligible for the NRHP, archaeological sites, districts, buildings, structures, or objects, must meet one of four criteria established by the National Park Service (NPS):

- (a) Associated with events that have made a significant contribution to the broad patterns of history.
- (b) Associated with the lives of persons significant in the past.
- (c) Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic value; or represent a significant and distinguishable entity whose components may lack individual distinction; and
- (d) Have yielded, or may be likely to yield, information important in prehistory or history.

Additionally, the archaeological resource must have integrity of "location, design, setting, materials, workmanship, feeling and association" to convey its significance (36 Code of Federal Regulations [CFR], Part 60, Section 60.6).

The TNARNG requests archaeological services (Contractor) for survey of 136.44 acres at the Johnson City and Mt. Carmel AFRC locations in northeast Tennessee to fulfill the requirements set out in the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), and to determine the appropriate resource management measures for future mission requirements.

B. OBJECTIVE

The objective of this Scope of Work (SOW) is to survey 136.44 acres of land for archaeological resources. The information to be collected will be used for the continuation of the cultural resources management program in striving to compile cultural resources' site records and surveys. This will help further guide for site preservation practices and advance our Section 106 process for federal 'undertakings' consultations.

The following are the objectives of this statement of work:

1. Archival research is necessary to develop a historic context for the report of findings and aid in the evaluation process.
2. Survey of **136.44 acres** that have not been surveyed to modern archaeological standards in accordance with the NHPA.
3. Preparation of a comprehensive report summarizing the findings from the archival research, field investigations, a historic context, evaluation recommendations, updated site forms, and management recommendations in accordance with standards maintained by the Tennessee State Historic Preservation Office (TN-SHPO).

All stages of this study will follow the guidelines established by the TN-SHPO, as presented in the *Tennessee SHPO Standards and Guidelines for Archaeological Resource Management Studies* (January 2024). Principal Investigator/s and Field Director/s will meet the minimal professional qualifications for archaeology as set forth in "Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines" (Federal Register, Volume 48, No. 190, September 29, 1983, Part IV, page 44739; see also 36 CFR 61). Following the TN-SHPO's *Standards*, direct field supervision by a professionally qualified archaeologist is recommended for all archaeological projects.

C. MAJOR REQUIREMENTS

The following tasks must be completed for the Contractor to successfully accomplish the work under this delivery order:

C.1 Task 1: Project Kick-Off Meeting

A Kick-Off Meeting will be performed in person, or virtual if the conditions necessitate it, with the TNARNG Point of Contact (POC) prior to commencement of work. At this time, the Contractor will be provided with background information relating to the study (i.e., previously completed Phase I survey reports, architectural evaluations, photographs, maps, etc.), if available. The TNARNG POC will be responsible for copying documents in cases where the original cannot be distributed to the Contractor for use during the execution of this SOW. This information will include the following:

- Maps showing the area of potential effect (APE) to be surveyed
- Available topographic maps.
- Current aerial photography of each respective property.
- Previously conducted archaeological surveys:

- Any additional requested information that is available and will assist in the archaeological survey

Whenever possible, this information will be provided to the Contractor in electronic format. The Contractor will be responsible for reviewing all provided data. In addition, the Contractor may accompany TNARNG representatives on a field review of areas of cultural interest at each AFRC location. This field review will serve to introduce the Contractor to the training site environment.

In addition, the logistical needs of the project and deliverables are to be discussed at this meeting. Following completion of the Kick-Off Meeting, the Contractor will prepare a summary letter, indicating an understanding of the current project and providing schedule for the archival research and field effort. The Contractor will need to coordinate their field schedule with each site POC so that there are no training area scheduling/use conflicts. Due to safety and mission training requirements, scheduling may vary, so plenty of advanced notice is advised.

C.2 Task 2: Archival Research

Archival research is conducted to document the historical context and archaeological deposits of a site. Initial archival research provides a basis for site identification in advance of discoveries of archaeological remains at a project area. Such research is often undertaken at the beginning of a project to better understand the local land use at the project location (farming or agricultural land use, domestic land use, industrial land use, military land use, railroad-related land use, or other usage). Examples of research materials examined during the course of the study include the study of historical maps (Sanborn Fire Insurance Company Maps, old topographic and road maps, tax assessor's maps, etc.), deeds and property records, aerial photographs, and other documentation. The Contractor should perform the archival research prior to the field effort.

Research materials may be available from the TNARNG but also will require additional research efforts by the Contractor at locations such as (but not limited to) the TN State Library and Archives; Universities of Tennessee Libraries; each individual counties' Tax Assessor's Office; each individual counties' Historical Society; and using online references as deemed credible. Results of this research should be used to compile a historic context for inclusion in the report of findings.

C.3 Task 3: Submission of Project Work Plan

The Contractor will submit for review by the TNARNG POC a Project Work Plan detailing the scheduled stages of the project and the proposed methodology to be used in each phase. The work plan will be completed and approved by the TNARNG POC within one month following the kick-off meeting.

The methodology should be in accordance with scientific standards and those outlined by the *Tennessee SHPO Standards and Guidelines for Archaeological Resource Management Studies* (January 2024). The Tennessee Division of Archaeology (TDOA) is available to consult with regarding appropriate site survey methodology.

The Contractor is responsible for obtaining any permits and authorizations that may be required to complete this contract. Copies of all permits will be provided to the TNARNG POC within 30 days of issuance. At minimum, the Contractor will need to apply for a permit with the TDOA.

C.4 Task 4: Field Work

This portion of the project will be performed by personnel that meet the minimal professional qualifications for archaeology as set forth in “Archaeology and Historic Preservation: Secretary of the Interior’s Standards and Guidelines” (Federal Register, Volume 48, No. 190, September 29, 1983, Part IV, page 44739; see also 36 CFR 61) with methodology in accordance with the *TNSHPO Standards and Guidelines for Archaeological Resource Management Studies* (January 2024).

The Contractor will perform an archaeological survey to identify possible site locations and their respective boundaries. Archaeological surveys must include a systematic pedestrian walk-over, a visual inspection of the survey tract/APE, and the systematic collection of all artifacts from the ground surface. Additional inspection, in most circumstances, will be necessary, such as systematic subsurface testing (i.e., shovel tests, auger tests, etc.).

Survey intervals should not exceed 20 meters apart unless agreed upon by the TNARNG POC; 5-meter intervals in a grid pattern (not merely N-S/E-W) are preferred for establishment of site boundaries. All fill should be sifted through ¼-inch mesh screen. Tests are to be excavated to at least 80 centimeters below surface (cmbs) or until impenetrable substrate (i.e., bedrock or clay), known sterile subsoil, or the water table is reached. Artifacts should be collected following a defined sampling strategy that is applied consistently throughout the project and is in accordance with the TNSHPO’s *Standards*; artifacts must be cleaned, bagged, and labeled by provenance.

Daily field notes and photographs must be recorded to document all survey activities, shovel tests, and observations. All shovel tests, excavation units and features should be recorded with sub-meter accuracy using a Global Positioning System (GPS -see C.6. Task 6 for specifications for collection perimeters) apparatus. Soil types, textures, and colors should be recorded using sand grain-sizing gauges and Munsell color designations. Photographs should be made with clear quality, high resolution (18-20 megapixels/800 ppi) photographs; a photographic catalog (photo log) should be made with the photographs to document proveniences.

If new sites are encountered during the field effort, these sites will be recorded using the Tennessee Site Survey Record form (which can be obtained from the Site File Curator Paige Silcox), the originals of which are submitted to the TN-SHPO. Guidance and definitions of what constitutes an archaeological site versus an isolated find can be found at the TDOA website that provides Frequently Asked Questions (FAQ’s) for site reporting and an updated site form template. Also, consult the Georgia Council of Professional Archaeologists’ (GPCA) *Georgia Standards and Guidelines for Archeological Investigations* (revised 2019) for further guidance. Standing structures or structural remains found in association with subsurface archaeological deposits should be recorded accordingly.

If human remains are discovered in the course of fieldwork, **cease all work** in the area of the discovery and contact the TNARNG POC **immediately**. The TNARNG POC will follow the Inadvertent Discoveries Standard Operating Procedure (SOP) and contact the State Archaeologist and local police authorities.

TNARNG Project Personnel will complete a site visit of all cultural resources being investigated by the Contractor concurrent to the review of the draft report. This field check of these sites is required for management purposes and as part of the Quality Assessment/Quality Control (QA/QC) for the TNARNG.

C.5 Task 5: Reporting

The project will include the preparation of a draft report and a final report detailing the results of the archival research and the fieldwork. The draft report must be completed after completion of the archival research and fieldwork and must include a copy of the draft GIS data to populate the TNARNG GIS geo-database. The final report must be completed incorporating any comments from the TNARNG POC and the TDOA/TN-SHPO and final GIS data (see section F-deliverables) to complete populating the final TNARNG GIS geo-database submittal.

The report will follow the general standards set forth in the *Tennessee SHPO Standards and Guidelines for Archaeological Resource Management Studies* (January 2024), including a title page; management summary; table of contents; introduction; literature/document search; environmental setting description; research/field/laboratory methodology; GIS methodology; the results of the investigation; a historic context within which to reasonably address, and provide a preliminary interpretation or evaluation recommendation for each site; and copies of completed (typed) State Archaeological Site Forms.

Recommendations for sites should include whether the sites are eligible for the NRHP or not, and include guidance for avoidance, protection/stabilization, or data recovery for future mitigation of adverse effects. **Recommendations for “undetermined” will not be accepted.**

Upon acceptance of the draft report and its recommendations for sites by TNARNG, a final will be prepared. Contractor will not submit any draft or final reports to the TDOA/TN-SHPO. The Contractor will submit reports to the TNARNG POC for review; submittal to the TDOA/TN-SHPO will be done by the TNARNG POC.

Amended site forms should be made for any previously recorded archaeological sites visited through the course of the survey, and new site forms shall be prepared for newly encountered sites.

The Contractor will submit artifacts to the TNARNG POC as “curation ready,” in accordance with 36 CFR 79.

C.6 Task 6: Geographic Information System (GIS) Database

Geospatial data collection should entail the use of mapping grade or better global positioning systems. Sub-meter accuracy must be maintained for all cultural data collected, and the final deliverable will include a GIS Methodology describing collection methodologies, real time differential corrections, and/or post processing methodologies. The TNARNG Environmental GIS Program Manager will provide Contractor with the required geo-database template(s) and accumulated background GIS data necessary to support the current contract, along with an informative whitepaper describing acceptable data codes and required data population fields if necessary.

GIS data submittals shall adhere to the following data standards: FGDC metadata compliant (<http://www.fgdc.gov/metadata>), populated completely, SDSFIE 4.0.2 or above, compliant (<http://www.sdsfie.org/>) and AR 115-13. All GPS points must be collected at sub-meter accuracy or better with real time correction as well as post processed for accuracy verification. However, GPS data can be collected with the contractor’s preference of equipment if the standards are obtained. The TNARNG GIS program currently utilizes ArcGIS Field Maps with Trimble DA2 Catalyst to produce required sub-meter accuracy. Project data, coordinate system, and datum shall be WGS1984, Universal Transverse Mercator (UTM), zones 16N or 17N depending on location.

Acceptable file formats for GIS data submittals are ESRI ArcGIS, File Geodatabase. All new data collected during the project must be post-processed to achieve sub-meter accuracy.

A DRAFT GIS deliverable is required (Task 4a), and should accompany any documentation (i.e., survey reports) submitted for review. GIS data acquired during the course of the study will be submitted for review by the TNARNG GIS Program Manager along with the draft document. DRAFT GIS deliverables will be checked for accuracy and completeness, including feature geometry, attributes, and metadata requirements. Following review, the (Final) GIS data must be included with the FINAL deliverables.

Contractor will coordinate with TNARNG GIS Section prior to initiating any field survey that requires GIS/GPS data collection allowing sufficient lead-time for the GIS Section to observe data collection during fieldwork if desired for collaboration and compatibility measures.

C.7 Task 7: Curation and Delivery of Documentation

All information collected during the implementation of this project becomes property of TNARNG and the Department of Defense (DoD). This includes field records, laboratory records, artifacts, audio/visual media, recordings, footage, still pictures, maps, GIS data, databases, photographic catalogs, artifact catalogs, and other materials collected, produced or acquired with project funding. Deliverables will not be subject to any kind of license, copyright, or other encumbrance. Materials produced using TNARNG/DoD funding will not be sold for a profit. Artifacts must be cleaned, bagged, and labeled by provenance prior to curation; curation requirements will follow standards established under 36 CFR 79 (Curation of Federally Owned and Administered Archaeological Collections). These artifacts will be turned over to the TNARNG POC for curation with the state of TDOA.

One electronic copy (should be submitted through an email Portable Document Format (.pdf) file or a safe and secure file transfer site; Army uses DoD SAFE- <https://safe.apps.mil>) of the DRAFT report, along with the GIS draft data (electronic submittal only) will be submitted to the TNARNG POC for review to ensure all needed information is included. To send files through DoD SAFE, you will need to coordinate with the TNARNG POC, where then the “Request for Drop-Off” can be initiated. The draft is due two months after completion of fieldwork.

Comments on the draft report will be returned to the Contractor within six weeks of receipt. Following receipt of these comments, the Contractor has one month or until the end of the contract (six months from initiation) to complete any changes and submit the final report.

Three (3) hard copies of the FINAL report will be submitted to cover TNARNG’s needs as well as the needs of the TDOA/TN-SHPO. The preferred format for the actual report is the optical character recognition enabled .pdf with other supporting documentation in editable file formats. All data will be in editable files that can be effectively incorporated into the TNARNG GIS system. Read-only files are not acceptable.

D. GOVERNMENT FURNISHED INFORMATION OR MATERIAL

The TNARNG shall furnish access to all requested data relevant to this project that is under its control. This will include topographic maps and environmental data about the site, if available. The TNARNG will provide access to the installation for the necessary fieldwork; however, the Contractor must notify the TNARNG POC about the dates and times scheduled for fieldwork on the property.

E. CONTRACTOR REQUIREMENTS AND RESPONSIBILITIES

The contract work shall be performed by or under the direct supervision of personnel who are professionally qualified in archaeology as set forth in “Archaeology and Historic Preservation: Secretary of the Interior’s Standards and Guidelines.”

The Contractor shall furnish, except as noted, all labor, materials, equipment, tools, transportation, communications, and supplies required to complete the work in accordance with project specifications, terms of the contract, and this SOW.

The contractor shall obtain all permits and authorizations that may be required to complete this contract. Copies of permits will be furnished to the TNARNG POC within 30 days of issuance.

All information and data provided by TNARNG to the Contractor is for the purpose of fulfilling this contract. This information is to be protected by the Contractor; it is not to be distributed or utilized for any other purpose under penalty of law.

Upon completion of the Project, the Contractor shall protect all maps, photographs, specimen materials, studies, surveys, inventories, evaluations, plans, and project reports obtained or collected during the course of the Contract work in accordance with all regulations, laws and statutes. Copies of reports and applicable related materials will be furnished to the TNARNG upon completion of the Contract.

Publication of results from this project is possible only with written permission and cooperation from the TNARNG Environmental Office. Any manuscript must be approved by the TNARNG POC and the TNARNG Public Affairs Office (PAO) prior to submission for publication.

F. DELIVERABLES

All maps, historic documents and other items borrowed from the TNARNG or other contractors under contract to the TNARNG are the property of the TNARNG and shall be returned to the TNARNG upon completion of this Contract. The deliverables due in fulfillment of this Contract are summarized below:

F.1 Deliverables Description

Task	Description	Deliverables
1	Kick-Off Meeting	a) Attend meeting b) Summary Letter (1 electronic copy)
2	Archival Research	a) Incorporate into report of findings b) Any materials photocopied, books purchased, newspaper articles, photographs, maps or other materials produced, acquired or obtained during archival research.
3	Work Plan Submission	a) Project Work Plan detailing survey methodologies b) Copies of all permits and authorizations that are obtained during the contract work
4	Field Effort	a) 1 copy of original field notes b) 1 copy of site maps and maps of survey areas c) 1 copy of shovel test rosters d) 1 copy of photography log e) 1 electronic copy of GIS data (see task 6) f) Incorporate into report of findings

5	Report of Findings	a) Draft report of findings (incorporating results of archival research, field effort and oral histories; and providing eligibility determinations for sites investigated) –one (1) electronic copy b) Final report of findings (incorporating results of archival research, field effort and oral histories; providing eligibility determinations for sites investigated; and incorporating any comments from draft documents) – three (3) hard copies.
6	GIS data	a) Fully completed geodatabase that is FGDC compliant, metadata conforming to SDSFIE requirements, and fully compatible with ESRI products. All data must be post-processed using sub-meter accuracy; UTM Zone 16N; referenced to WGS 84 datum. The data must be checked for accuracy and completeness, including feature geometry, attributes, and metadata requirements b) Updated from field check QA/QC data from TNARNG c) Populated SDSFIE compliant geo-database. d) After DRAFT, one (1) electronic copy of geodatabase for review (with 6a requests) e) FINAL copy of FINAL geodatabase f) NOTE: Templates will be provided to Contractor from TNARNG GIS if necessary
7	Curation and Delivery of documentation	a) All artifacts from collection b) All curation materials / artifacts, photographs / photologs, GIS data and other items collected during study c) All copies of field notes or other material not provided during subsequent tasks.

F.2 Deliverables Compensation

The Contractor shall be compensated based upon the following payment methodology:

Goods or Services Description	Contract Percentage
Tasks 1-3: (Kick-Off Meeting, Archival Research, and Work Plan Submission) within thirty days from kick-off meeting	15%
Task 4: Field Effort	35%
Tasks 5a, 6c: Draft Report and Draft GIS Data within two months of the completion of fieldwork	20%
Tasks 5b, 6e: Final Report and Final GIS within one month or up to the contract completion	25%
Task 7: Curation Materials	5%

G. MEETINGS AND REVIEWS

Consultations and meetings will be conducted as necessary. At a minimum, this will include:

1. Kick-Off meeting – JFHQ, Nashville, TN in-person, on-site in-person if appropriate, or virtual if the conditions necessitate it.
2. Review of Project Work Plan – may be conducted in person or via phone/email.

3. Monthly progress report reviews – may be conducted in person or via phone/email.
4. Draft plan review – may be conducted in person or via phone/email.
5. Review of Final Report.

H. TECHNICAL REPRESENTATIVE

The TNARNG technical representative under this Contract is Jonathan Guilford at (629)332-6221 (jonathan.r.guilford.nfg@army.mil). All material submissions are to be sent to Mr. Guilford at the following address:

**Tennessee Army National Guard
Construction and Facilities Maintenance Office – Environmental Division
ATTN: Jonathan Guilford
3041 Sidco Drive
Nashville, TN 37204-4505**

On-site personnel contact information will be provided as a separate attachment to the contract awardee. All visits to each individual AFRC by the Contractor should be coordinated through the applicable personnel.

The TNARNG Cultural Resources POC is Jonathan Guilford at (629) 332-6221 (jonathan.r.guilford.nfg@army.mil).

The TNARNG GIS POC is James “Dave” Meadows at (629) 332-6270 (james.d.meadows.nfg@army.mil). GIS/GPS requests must be coordinated in advance through Mr. Meadows.

No TNARNG personnel, other than the Contracting Officer, shall have the authority to change or alter these requirements. The Technical Representative shall clarify technical points or supply relevant technical information, but no requirements in this statement of work or the scope of work may be altered as a sole result of such verbal clarification.

I. PERIOD OF SERVICE

The Period of service for this contract shall be 365 days from notice to proceed.

- END OF SCOPE OF WORK –

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JOHNSON CITY GRAY

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TRAINING GIS TEAM
ON OCTOBER 2016
BY ELLIOTT
TERRY ALDRIDGE
www.elliott.aldridge@gmail.com



0 25 50 100 150 200 Meters

110.04 Acres



<https://reports.gis.army.mil/Reports/Default.aspx>

1:2,000

MT. CARMEL

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ON OCTOBER 2016
BY: J. L. HARRIS
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www.tennis-gis.com



0 25 50 100 150 200 250 Meters

33.31 Acres



<https://portal.ng.army.mil/tns/GIS/default.aspx>