

**FINDING OF NO SIGNIFICANT IMPACT**  
**TENNESSEE VALLEY AUTHORITY**  
PROPOSED FILL FOR  
DEFOORS BROTHERS DEVELOPMENT  
RIVER STREET LUXURY CONDOMINIUMS  
ADJACENT TO TENNESSEE RIVER MILE 464.5R  
HAMILTON COUNTY, TENNESSEE

Defoors Brothers Development submitted to Tennessee Valley Authority (TVA) on June 23, 2005, an application for approval required under Section 26a of the *TVA Act* to place approximately 3,800 cubic yards of fill within the 100-year floodplain. The location of the proposed fill and development is adjacent to Tennessee River Mile (TRM) 464.5R (right bank) on Nickajack Reservoir. The fill would enable construction of luxury condominiums at 600 River Street in downtown Chattanooga. The fill is necessary to elevate the first floor of the proposed development to a minimum of 2 feet above the 100-year flood elevation to comply with Chattanooga's floodplain ordinance. The areas around the building and parking areas would also be raised above the 100-year flood elevation.

TVA has assessed the impacts of the proposed fill in an environmental assessment (EA), which is incorporated by reference. The EA evaluates two viable alternatives: the No Action Alternative and the Action Alternative (Approve Fill in the Floodplain Alternative).

Under the No Action Alternative, TVA would not approve the 3,800 cubic yards of fill to be placed within the 100-year floodplain. The applicant would not be able to develop the property as presently proposed. The applicant may be able to develop the property with an alternate design not requiring fill in the floodplain. Under the Action Alternative, TVA would issue approval under Section 26a of the *TVA Act* to authorize placement of 3,800 cubic yards of fill within the 100-year floodplain. Placement of fill would enable the applicant to construct the luxury condominiums as presently planned. The placement of fill would be contingent upon completion of the archaeological site mitigation described below.

**Impacts Assessment**

TVA has determined that the proposed actions would not affect wetlands, endangered or threatened species, navigation, or recreational activities. The proposed action would affect floodplains, cultural resources, and water quality and aquatic life; potential impacts to these resources are described in the EA. TVA has determined that there is no practicable alternative to filling in the floodplain and that the proposed project would comply with Executive Order (EO) 11988. The proposed fill would adversely affect an archaeological site (40HA524) determined to be eligible for listing in the National Register of Historic Places. TVA has prepared a memorandum of agreement (MOA), which outlines the treatment by data recovery of the affected site and which demonstrates compliance with Section 106 requirements. The MOA stipulates the treatment plan agreed upon by TVA, the Tennessee State Historic Preservation Officer, and the other consulting parties. TVA has determined that, with implementation of the terms of the MOA, effects on cultural resources would be insignificant. The applicant's detailed *Grading and Erosion Control*

*Plan*, when implemented properly, would reduce the potential impacts to water quality and associated aquatic life from surface water runoff to insignificant levels.

**Public Review**

In accordance with EO 11988 on Floodplain Management and TVA's procedures for compliance with the *National Environmental Policy Act* (NEPA), TVA published a public notice of the proposed fill on its Web site on August 14, 2008. The comment period ended on August 28, 2008. In response to the public notice, TVA received one comment that requested information regarding documentation of any notice to affected Indian tribes or to state representatives of the Native American community. TVA responded to the comment on September 2, 2008.

**Mitigation and Special Permit Conditions**

In addition to adherence to standard and general permit conditions and the use of construction-related best management practices, TVA would require the applicant to comply with the terms of the MOA for data recovery from archaeological site 40HA524.

**Conclusion and Findings**

TVA has reviewed the impacts from the proposed fill for development of Defoors Brothers Development and has determined that approval under Section 26a of the TVA Act for the proposed fill would not be a major federal action significantly affecting the environment. Accordingly, preparation of an environmental impact statement is not required. The finding of no significant impact is contingent upon adherence to the mitigation described above.

 for

October 14, 2008

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Daniel H. Ferry, Senior Manager  
Environmental Services and Programs  
Office of Environment and Research  
Tennessee Valley Authority

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Date Signed

**Document Type:** EA-Administrative Record  
**Index Field:** Final Environmental Document  
**Project Name:** Defoors Brothers Development  
**Project Number:** 2008-66

## ENVIRONMENTAL ASSESSMENT

**PROPOSED FILL FOR  
DEFOORS BROTHERS DEVELOPMENT  
RIVER STREET LUXURY CONDOMINIUMS  
ADJACENT TO TENNESSEE RIVER MILE 464.5R  
Hamilton County, Tennessee**

**PREPARED BY:**  
TENNESSEE VALLEY AUTHORITY

OCTOBER 2008

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## ENVIRONMENTAL ASSESSMENT

### PROPOSED FILL FOR DEFOORS BROTHERS DEVELOPMENT RIVER STREET LUXURY CONDOMINIUMS ADJACENT TO TENNESSEE RIVER MILE 464.5R HAMILTON COUNTY, TENNESSEE

TENNESSEE VALLEY AUTHORITY

OCTOBER 2008

#### **The Proposed Decision and Need**

Defoors Brothers Development in Chattanooga, Tennessee, submitted to Tennessee Valley Authority (TVA) on June 23, 2005, an application for approval required under Section 26a of the TVA Act to place approximately 3,800 cubic yards of fill within the 100-year floodplain. The location of the proposed fill and development is adjacent to Tennessee River Mile (TRM) 464.5R (right bank) on Nickajack Reservoir (see Attachment 1, joint Department of the Army/TVA application form for Section 26a approval). The fill would enable construction of luxury condominiums at 600 River Street in downtown Chattanooga. The fill is necessary to elevate the first floor of the proposed development to a minimum of 2 feet above the 100-year flood elevation to comply with Chattanooga's floodplain ordinance. The areas around the building and parking areas would also be raised above the 100-year flood elevation. There would be no docks or other water use facilities associated with the proposed development.

#### **Public Involvement**

In accordance with Executive Order (EO) 11988 on Floodplain Management and TVA's Procedures for Compliance with the National Environmental Policy Act (NEPA), TVA published a public notice (Attachment 2) of the proposed fill on its Web site on August 14, 2008. The comment period ended on August 28, 2008. One comment was received that requested information regarding documentation of any notice to affected Indian tribes or to state representatives of the Native American community. TVA responded to the commenter on September 2, 2008 (see Attachment 2).

#### **Alternatives and Comparison**

This environmental assessment evaluates two viable alternatives: the No Action Alternative and the Action Alternative (Approve Fill in the Floodplain Alternative).

##### No Action Alternative

Under the No Action Alternative, TVA would not approve the 3,800 cubic yards of fill to be placed within the 100-year floodplain. The applicant would not be able to develop the property at 600 River Street to build luxury condominiums as presently proposed. The applicant may be able to develop the property with an alternate design not requiring fill in the floodplain.

### Action Alternative – Approve Fill in the Floodplain Alternative

Under the Approve Fill in the Floodplain Alternative, TVA would issue Section 26a approval to authorize placement of 3,800 cubic yards of fill within the 100-year floodplain. Placement of fill would enable the applicant to construct the luxury condominiums as presently planned. The placement of fill would be contingent upon completion of the archaeological site mitigation described below.

### Alternative Considered but Dismissed

TVA had developed three alternatives to the original proposal building configuration for the applicant to consider. These alternatives consisted of different building footprints/designs that would reduce or avoid adverse effects to an archaeological site. The alternatives and the associated schedule and cost considerations were discussed with the applicant, the applicant's consultant (MAP Engineering), and Steve Leach of the City of Chattanooga's Public Works Department in December 2006. The applicant and his consultant committed to review the additional information and determine which alternative or a variation on one of the suggested alternatives they would consider.

The applicant's criteria for the proposed development include locating the structure as close to the river as possible, the need for an underground garage, and locating so as not to interfere with an existing sewer line. In order for the applicant to develop his property to the greatest investment potential, these limitations made the alternative designs not practicable. The applicant subsequently decided to stay with the project design as originally proposed and to proceed with mitigation of adverse impacts to the archaeological site.

No additional alternatives were proposed by respondents to the August 2008 public notice.

## **Affected Environment and Evaluation of Impacts**

### Impacts Evaluated

Many of the potential environmental impacts of this proposed action were described in Categorical Exclusion Checklist 10341 (see Attachment 3) in 2005. Based on this review, TVA has determined that the proposed actions would not affect wetlands, endangered or threatened species, navigation, or recreational activities. Maclellan Island, located adjacent to the proposed development (extending from approximately TRM 465 downstream to TRM 464.4), is owned and managed by the Chattanooga Audubon Society. A heron nesting colony is located on the island, and developed recreation facilities on the island include a boat landing, hiking trail, overnight shelter, picnic tables, and wildlife observation platform. TVA has determined that due to the areas on both sides of the island being heavily urbanized with business operations, no impacts to Maclellan Island are expected. Minor, short-term construction-related noise, air, and traffic impacts are expected during site development and are expected to be insignificant. The proposed action would affect floodplains, cultural resources, and water quality and aquatic life; potential impacts to these resources are described below.

### ***Floodplains***

As previously mentioned, the proposed Defoors fill and condominium development is adjacent to TRM 464.5. At this location, the 100-year and TVA's Flood Risk Profile elevation (the 500-year flood elevation) are 657.2 and 663.8 feet (National Geodetic Vertical Datum of 1929), respectively. In an e-mail dated July 14, 2005, MAP Engineers

indicated that in order to develop this property so that it would not flood, there are no alternatives to filling in the floodplain. TVA concurs with this finding and agrees that there is no practicable alternative to the proposed fill because the site must be elevated so that the first floor of the building would be at least 2 feet above the 100-year flood elevation and the parking area below the building would not be flooded during a 100-year flood. Based on an August 16, 2005, e-mail from Richard Hutsell, Chattanooga zoning official, to Mike Price, MAP Engineers, the project would comply with Chattanooga's local floodplain regulations. TVA has therefore determined that the proposed project would comply with EO 11988. TVA also indicated from a standpoint of flood control, that it would have no objection (see Attachment 3).

Under the No Action Alternative, TVA would not permit fill within the 100-year floodplain, and the applicant would not be able to construct the proposed luxury condominiums at 600 River Street as presently designed. Under the Action Alternative, TVA would allow the placement of approximately 3,800 cubic yards of fill as requested by the applicant. Defoors would be able to build the luxury condominiums as presently planned.

### ***Cultural Resources***

On April 20, 2006, TVA initiated consultation with the Tennessee Division of Archaeology and reported to the Tennessee State Historic Preservation Officer (TN SHPO) the results of a Phase I archaeological survey. The survey was conducted as a result of the Defoors proposed fill request, which identified one site (40HA524) that would require additional archaeological testing to determine its eligibility for listing in the National Register of Historic Places (NRHP) (Alexander 2006). The letter identified the area of potential effects (APE) to be a 2.5-acre development tract and associated borrow area for the fill. The borrow area was determined to have a low potential for archaeological resources. The letter requested comments on the scope of work (SOW) for the proposed Phase II testing (all cultural review documentation is contained in Attachment 5). On April 27, 2006, the TN SHPO concurred that the project area contains archaeological resources potentially eligible for listing in the NRHP and that site 40HA524 should either be avoided by all ground-disturbing activities or subjected to Phase II archaeological testing. The TN SHPO agreed with the proposed Phase II SOW previously provided.

On November 14, 2006, TVA submitted a letter to the TN SHPO agreeing with Alexander (2006) that site 40HA524 meets the criteria for eligibility for listing in the NRHP; specifically, the site is eligible under Criterion D. A Phase II report describing testing conducted to determine the site's eligibility status had previously been forwarded to the TN SHPO (Wolke and Alexander 2006). TVA also informed the TN SHPO that the project as proposed would have an adverse effect on site 40HA524 and that discussions with the applicant were underway to mitigate or avoid anticipated effects. TVA requested concurrence from the TN SHPO on these findings.

Site 40HA524 consists of a multicomponent, deeply stratified site occupied as early as the Early Archaic through the Mississippian periods. TVA's adverse effect determination to the site is based on the following assumptions:

1. The current plans call for excavation of an underground parking facility.
2. The proposed plans would result in a capping of the site, which would no longer allow access to the scientific data that qualifies it for listing in the NRHP.
3. Constructing a large building on the property could result in the compaction of soils that could adversely affect the archaeological deposits contained within.

On June 5, 2008, TVA notified the Advisory Council on Historic Preservation of the adverse effects of the proposed project. On this date, TVA also provided the TN SHPO notification that proposed alternative building designs for the development that would reduce or avoid adverse impacts had been discussed with the developer. After consideration of these options, the developer determined that site 40HA524 could not be avoided, and the project would proceed with the originally proposed design and, therefore, would proceed with Phase III data recovery at the site. TVA had previously provided the applicant a preliminary draft SOW for Phase III investigations (on February 14, 2008 - Attachment 6). TVA also proposed to the TN SHPO to enter into a memorandum of agreement (MOA) to mitigate the adverse effects of the undertaking. A draft MOA was provided to the TN SHPO along with the applicant's proposal for excavation prepared by the developer. Documentation pursuant to 36 CFR 800 Part 800.11(e) was also provided. TVA requested comments on the draft MOA. On June 19, 2008, the TN SHPO responded to the MOA and SOW for the Phase III data recovery (Honerkamp 2008) of site 40HA524 and concurred with the proposed data recovery outlined in the SOW.

On June 8, 2008, TVA provided correspondence to the 16 affected federally recognized Indian tribes inviting comment on the proposed MOA and SOW for Phase III data recovery of the site. The Jena Band of Choctaw Indians responded on July 3, 2008, that there would be no significant impacts concerning the Jena Band.

TVA submitted a final MOA to the TN SHPO on August 29, 2008. The MOA (Attachment 7) outlines the treatment of the adversely affected site and demonstrates compliance with Section 106 requirements. The MOA stipulates the treatment plan agreed upon by TVA, the TN SHPO, and the other consulting parties. The expected treatment plan would be data recovery of the site including monitoring, field excavation, laboratory analysis, and report writing. Data recovery of site 40HA524 is designed to answer specific research questions that are defined in a research design included in the MOA. The Phase III archaeological survey would be conducted to provide information on early Native American habitation of this area. The archaeological record would likely yield further information on the prehistory of the Tennessee River Valley. The TN SHPO approved the MOA on September 3, 2008.

Under the No Action Alternative, the applicant would not be permitted to place fill within the 100-year floodplain at the 600 River Street location. The Phase III data recovery would not occur. The applicant would not be able to construct the proposed condominiums as presently designed but could possibly develop the property with an alternate design. Under the Action Alternative, the applicant would be permitted to fill and build the condominiums at 600 River Street in downtown Chattanooga after the required commitment to a Phase III archaeological investigation.



### **Water Quality and Aquatic Life**

The project, located on the north shore of the Tennessee River near TRM 464.5R on Nickajack Reservoir in Hamilton County, Tennessee, involves 2.5 acres of land previously occupied by Fehn's Restaurant in downtown Chattanooga. The restaurant facilities have all been demolished, and the property consists of a grassy lawn and adjacent parking area. Examination of soil boring data indicated that the site contains fill previously placed that extends a depth of 1 foot to 8 feet across the property.

Construction of the proposed development has the potential to impact water quality and aquatic life in the adjacent Tennessee River from storm water runoff. The applicant's Section 26a application dated June 23, 2005 (see Attachment 1), includes a detailed *Grading and Erosion Control Plan*, which when implemented properly would reduce the potential impacts to water quality and associated aquatic life from surface water runoff to insignificant levels. A National Pollutant Discharge Elimination System permit was submitted to the Tennessee Department of Environment and Conservation on May 24, 2005.

### **Mitigation Measures**

The applicant would be required to comply with the terms of the MOA for data recovery from archaeological site 40HA524.

### **Preferred Alternative**

Upon execution of an MOA agreeable to the applicant, the TN SHPO, and TVA, TVA would issue approval under Section 26a of the TVA Act to enable the developer to place fill on his property at 600 River Street in Chattanooga, Tennessee.

### **TVA Preparers**

<b>Dan Fisher</b>	Land Use Specialist, Project Manager (retired)
<b>Kelie Hammond</b>	Navigation Program Manager, Navigation
<b>Martin High</b>	Watershed Program Manager, Wetlands, Migratory Birds, Terrestrial Ecology, Endangered and Threatened Species
<b>Mary McBryar</b>	Environmental Scientist, Document Review
<b>Roger Milstead</b>	Flood Risk Program Manager, Floodplains
<b>Charles Nicholson</b>	NEPA Program Manager, Document Review and NEPA Compliance
<b>Ken Parr</b>	Senior NEPA Specialist, NEPA Project Manager
<b>Erin Pritchard</b>	Archaeologist, Cultural Resources

## **Agencies and Others Consulted**

Absentee Shawnee of Oklahoma	Kialegee Tribal Town
Alabama-Coushatta Tribe	Muscogee (Creek) Nation of Oklahoma
Alabama-Quassarte Tribal Town	Seminole Indian Tribe
Cherokee Nation of Oklahoma	Seminole Nation of Oklahoma
Chickasaw Nation	Shawnee Tribe
Choctaw Nation of Oklahoma	Tennessee Department of Environment and Conservation
City of Chattanooga, Zoning Official	Tennessee State Historic Preservation Officer
Eastern Band of Cherokee Indians	Thlopthlocco Tribal Town
Eastern Shawnee Tribe of Oklahoma	United Keetoowah Band
Jena Band of Choctaw Indians	

## **References**

- Alexander, L. S. 2006. *Phase I Archaeological Survey of a Proposed 2.5-Acre Development Parcel on Tennessee River 464.5R in Chattanooga, Hamilton County, Tennessee*. Wildwood, Ga.: Alexander Archaeological Consultants.
- Honerkamp, N. 2008. *A Proposal for Phase III Archaeological Data Recovery of a Proposed 2.5-Acre Development Parcel at Tennessee River Mile 464.5 in Chattanooga, Hamilton County, Tennessee*. Presented to MAP Engineers and Tennessee Valley Authority May 9, 2008. Chattanooga, Tenn.: Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga.
- Wolke, D., and L. S. Alexander. 2006. *Phase II Archaeological Survey of a Proposed 2.5-Acre Development Parcel on Tennessee River 464.5R in Chattanooga, Hamilton County, Tennessee*. Wildwood, Ga.: Alexander Archaeological Consultants.

## **Attachments**

- Attachment 1. Department of the Army/TVA Joint Application Form (Section 26a fill request)
- Attachment 2. Public Notice, Comment Made in Response to Public Notice, and TVA Response to Comment
- Attachment 3. Categorical Exclusion Checklist 10341
- Attachment 4. Floodplains Correspondence
- Attachment 5. Cultural Resource/TN SHPO/Indian Correspondence
- Attachment 6. Preliminary Draft Scope of Work for Phase III
- Attachment 7. Memorandum of Agreement

\$ 1,000.00  
CK 3972

# Attachment 1

(8 pages)

OMB No. 3316-0080  
Exp. Date 08/31/2006

## JOINT APPLICATION FORM Department of the Army/TVA

RECEIVED

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(03)

JUL 06 2006

SC: 001CLKL

DCF 10-4-05

The Department of the Army (DA) permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (P.L. 96-217). These laws require permits authorizing structures and work in or affecting navigable waters of the United States and the discharge of dredged or fill material into waters of the United States. Section 26a of the Tennessee Valley Authority Act, as amended, prohibits the construction, operation, or maintenance of any structure affecting navigation, flood control, or public lands or reservations across, along, or in the Tennessee River or any of its tributaries until plans for such construction, operation, and maintenance have been submitted to and approved by the Tennessee Valley Authority (TVA).

Name and Address of Applicant: Defoor Brothers Development (Ken Defoor) 6074 Shallowford Road Chattanooga, TN 37421		Name, Address, and Title of Authorized Agent: MAP Engineers Attn: Autumn Friday 7380 Applegate Lane Chattanooga, TN 37421	
Telephone Number:	Home <u>423-280-1520</u> Office <u>423-855-0784</u>	Telephone Number:	Home <u>423-855-5554</u> Office _____

Location where activity exists or will occur (include Stream Name and Mile, if known):

600 River Street, Located adjacent to the Tennessee River at River Mile 464.50

Application submitted to  DA  TVA

Date activity is proposed to commence: 07/01/2005

Date activity is proposed to be completed: 07/01/06

Describe in detail the proposed activity, its purpose and intended use (private, public, commercial, or other). Describe structures to be erected including those placed on fills, piles, or floating platforms. Also describe the type, composition, and quantity of materials to be discharged or placed in the water; the means of conveyance; and the source of discharge or fill material. Please attach additional sheets if needed.

The above applicant proposed to construct luxury condominiums at 600 River Street. Efill will be placed in the 100 year flood (elevation 656.8 per FEMA FIRM panel 470072-0341) in order to bring the first floor elevation a minimum of 1 foot above the 100 year floodplain. The areas around the building and parking areas will also be brought above the 100 year flood plain. A cross section showing existing and proposed elevations has been included with this submittal. The total amount of fill below the 100 year flood plain is 3800 CY.

Application is hereby made for approval of the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I agree that, if this application is approved by TVA, I will comply with the attached terms and conditions and any special conditions that may be imposed by TVA at the time of approval. Please note the U.S. Army Corps of Engineers may impose additional conditions or restrictions.

6-23-05

Date

Signature of Applicant

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of The United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both. The appropriate DA fee will be assessed when a permit is issued.

Names, addresses, and telephone numbers of adjoining property owners, lessees, etc., whose properties also join the waterway:

List of previous DA/TVA permits/approvals  DA \_\_\_\_\_  TVA \_\_\_\_\_  
Permit Number Date

Is any portion of the activity for which authorization is sought now complete?  Yes  No (If "Yes" attach explanation)  
 Month and year the activity was completed: \_\_\_\_\_ . Indicate the existing work on the drawings.

List all approvals or certifications required by other federal, interstate, state, or local agencies for any structures, construction, discharges, deposits, or other activities described in this application.

Issuing Agency	Type Approval	Identification No.	Date of Application	Date of Approval
TDEC	NPDES Permit		05/24/2005	

Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein?  
 Yes  No (If "Yes" attach explanation)

Project plans or drawings should accompany the application. These should be on paper suitable for reproduction no larger than 11 x 17 inches or contained on a 3-1/2 inch floppy computer disc in "dxf" format, and should be submitted to the appropriate TVA and U.S. Army Corps of Engineers offices. An application that is not complete will be returned for additional information.

U.S.A.C.E. Offices		TVA Office Location
U.S. Army Corps of Engineers Eastern Regulatory Field Office P.O. Box 465 Lenoir City, Tennessee 37771-0465 (865) 986-7296	U.S. Army Corps of Engineers Savannah District The Plaza, Suite 130 1590 Adamson Parkway Morrow, Georgia 30260-1763 (678) 422-2729	Tennessee Valley Authority Chickamauga-Hiwassee Watershed Team 1101 Market Street, PSC 1E-C Chattanooga, TN 37402-2801 (423) 876-6706
U.S. Army Corps of Engineers Nashville District P.O. Box 1070 Nashville, Tennessee 37202-1070 (615) 736-5181	U.S. Army Corps of Engineers Western Regulatory Field Office 2042 Beltline Road, SW, Bldg C, Suite 415 Decatur, Alabama 35602 (256) 350-5620	
U.S. Army Corps of Engineers Norfolk District P.O. Box 338 Abingdon, Virginia 24212 (276) 623-5259	U.S. Army Corps of Engineers Asheville Regulatory Field Office 151 Patton Avenue, Room 208 Asheville, North Carolina 28801-5006 (828) 271-4856	

**Privacy Act Statement**

This information is being requested in accordance with Section 26a of the TVA Act as cited on the front page of this form. Disclosure of the information requested is voluntary; however, failure to provide any required information or documents may result in a delay in processing your application or in your being denied a Section 26a permit. An application that is not complete will be returned for additional information. TVA uses this information to assess the impact of the proposed project on TVA programs and the environment and to determine if the project can be approved. Information in the application is made a matter of public record through issuance of a public notice if warranted. Routine uses of this information include providing to federal, state, or local agencies, and to consultants, contractors, etc., for use in program evaluations, studies, or other matters involving support services to the program; to respond to a congressional inquiry concerning the application or Section 26a program; and for oversight or similar purposes, corrective action, litigation or law enforcement.

**Burden Estimate Statement**

Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Agency Clearance Officer, Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402; and to the Office of Management and Budget, Paperwork Reduction Project (3316-0060), Washington, D.C. 20503.

**LAND DISTURBING ACTIVITY NOTES:**

CONSTRUCTION TOP SOIL WILL BE SHOWN WHICH PLIES FROM THE SPECIAL OR AREA TO BE MAINTAINED. SOILS OUTSIDE OF THE CLEARING LINE WILL BE PROTECTED FROM CONSTRUCTION. APPROPRIATE WEEDING, SUPPLEMENTAL VEGETATION WILL BE ESTABLISHED.

EROSION CONTROL MEASURES OUTSIDE OF THE SPECIAL OR AREA WILL BE MAINTAINED UNTIL THE SPECIAL OR AREA IS COMPLETELY LAND DISTURBED. EROSION CONTROL MEASURES WILL BE MAINTAINED TO PREVENT EROSION IN AREAS OF CONSTRUCTION WHICH ARE NOT THE SPECIAL OR AREA. ALL SPECIAL WATER STRUCTURES WILL BE PROTECTED BY THE INSTALLATION OF STORM DRAIN COVER PROTECTION DEVICES.

STORM DRAIN COVER PROTECTION DEVICES WILL BE MAINTAINED BY THE INSTALLATION OF STORM DRAIN COVER PROTECTION DEVICES.

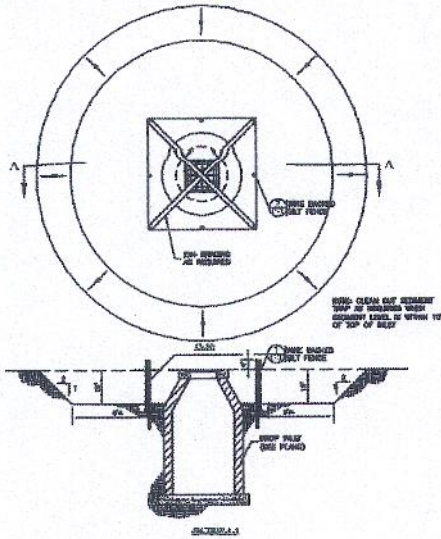
DIVERSIONS AND CURBS WILL BE INSTALLED TO DIVERT SEDIMENT FROM THE SPECIAL OR AREA AND TO PROTECT OUT AND FILL SLOPES FROM CONSTRUCTION. A TEMPORARY CONSTRUCTION CURB WILL BE EMPLOYED TO PREVENT THE TRANSPORT OF SEDIMENT FROM SITE BY VEHICULAR TRAFFIC.

CONSTRUCTION AND MAINTENANCE OF ALL SLOPES WILL CONFORM TO AND ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE PROFESSIONAL ENGINEER FOR EROSION AND SEDIMENT CONTROL IN TEMPERATE.

SOIL PROTECTION CONSTRUCTION ACTIVITIES WILL BE PERFORMED IN ACCORDANCE WITH THE PROFESSIONAL ENGINEER'S STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. NEARBY AREAS WILL BE PROTECTED FROM CONSTRUCTION BY THE INSTALLATION OF STORM DRAIN COVER PROTECTION DEVICES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE CONTROL. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

NOTE: EXISTING AND PROPOSED SEWER EASEMENTS NOT SHOWN FOR CLARITY PURPOSES ONLY. SEE SHEET C-1, C-5 AND L-1 FOR EXISTING SEWER EASEMENT LOCATIONS.



1 DETAIL: TEMPORARY SEDIMENT TRAP

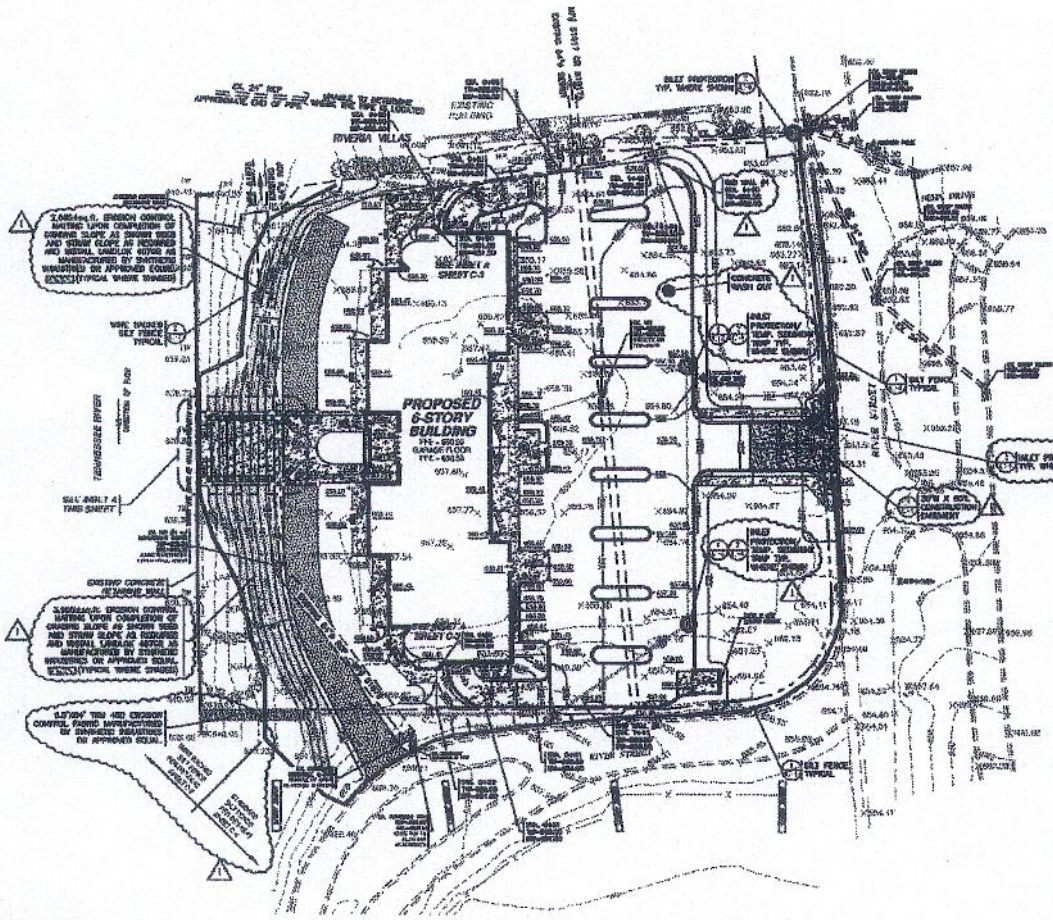
THE OWNER'S REPRESENTATIVE FOR EROSION CONTROL MEASURES SHOULD BE BUTCH BROWER (432) 240-1000.

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED, AND IF NECESSARY REPAIRED, WEARIED AND WITTEN 24 HOURS AFTER EACH RAINFALL EVENT GREATER OR EQUAL TO 0.5 INCHES.

ADDITIONAL EROSION CONTROL MEASURES, SUCH AS BUT NOT LIMITED TO, SILT FENCE, CHECK DAMS, SEDIMENT BASINS, EROSION CONTROL FABRIC, EARTHEN BARRIERS, SHALL BE USED CONSIST AS REQUIRED.

NOTE: EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE CONTROL. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

NOTE: EXISTING AND PROPOSED SEWER EASEMENTS NOT SHOWN FOR CLARITY PURPOSES ONLY. SEE SHEET C-1, C-5 AND L-1 FOR EXISTING SEWER EASEMENT LOCATIONS.



**Grading and Erosion Control Plan**

SCALE: 1" = 30'

**Revision # 1**

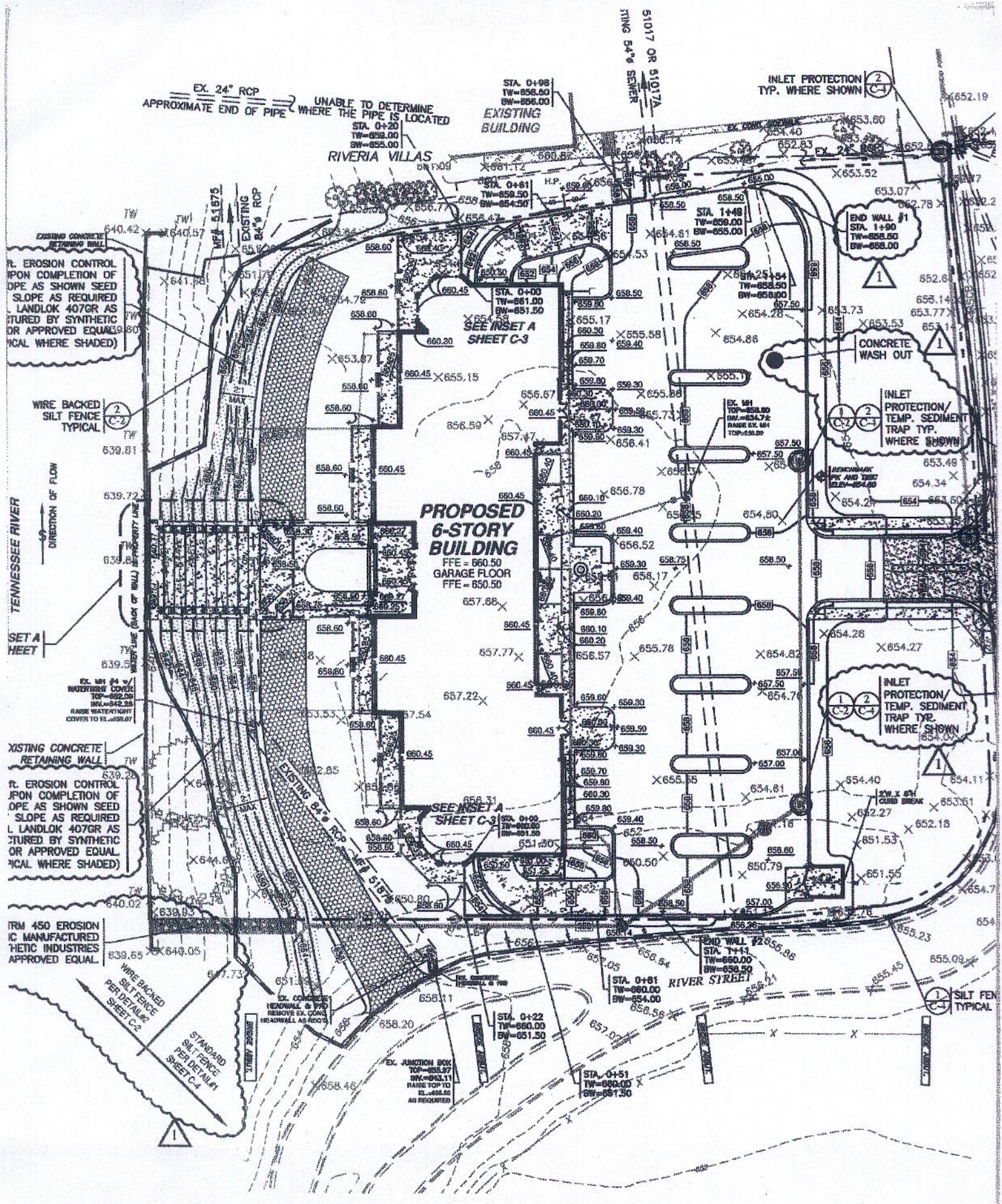
- ADD SEDIMENT CURB.
- ADD CONSTRUCTION DIRT.
- ADD CONCRETE WALK OFF AREA.
- ADD SILT FENCE AND SILT PROTECTION.
- ADD EROSION CONTROL FABRIC ON SLOPES.
- ADD NOTES SET AND JOB.
- ADD CONSTRUCTION NOTES.
- ADD WALL CONSTRUCTION, EXISTING WALL FT.
- ADD TRAP, SEDIMENT TRAP DEPT.
- ADD WIRE STAKED SILT FENCE DEPT.

A PORTION OF THIS PROPERTY LIES WITHIN THE 100 YEAR FLOOD PLAIN AS SHOWN ON SHEET OF THE NATIONAL FLOOD INSURANCE PROGRAM. FLOOD MAP OF CHATTANOOGA COUNTY, TENN. NUMBER 49072-0911 DATED NOVEMBER 7, 2006.

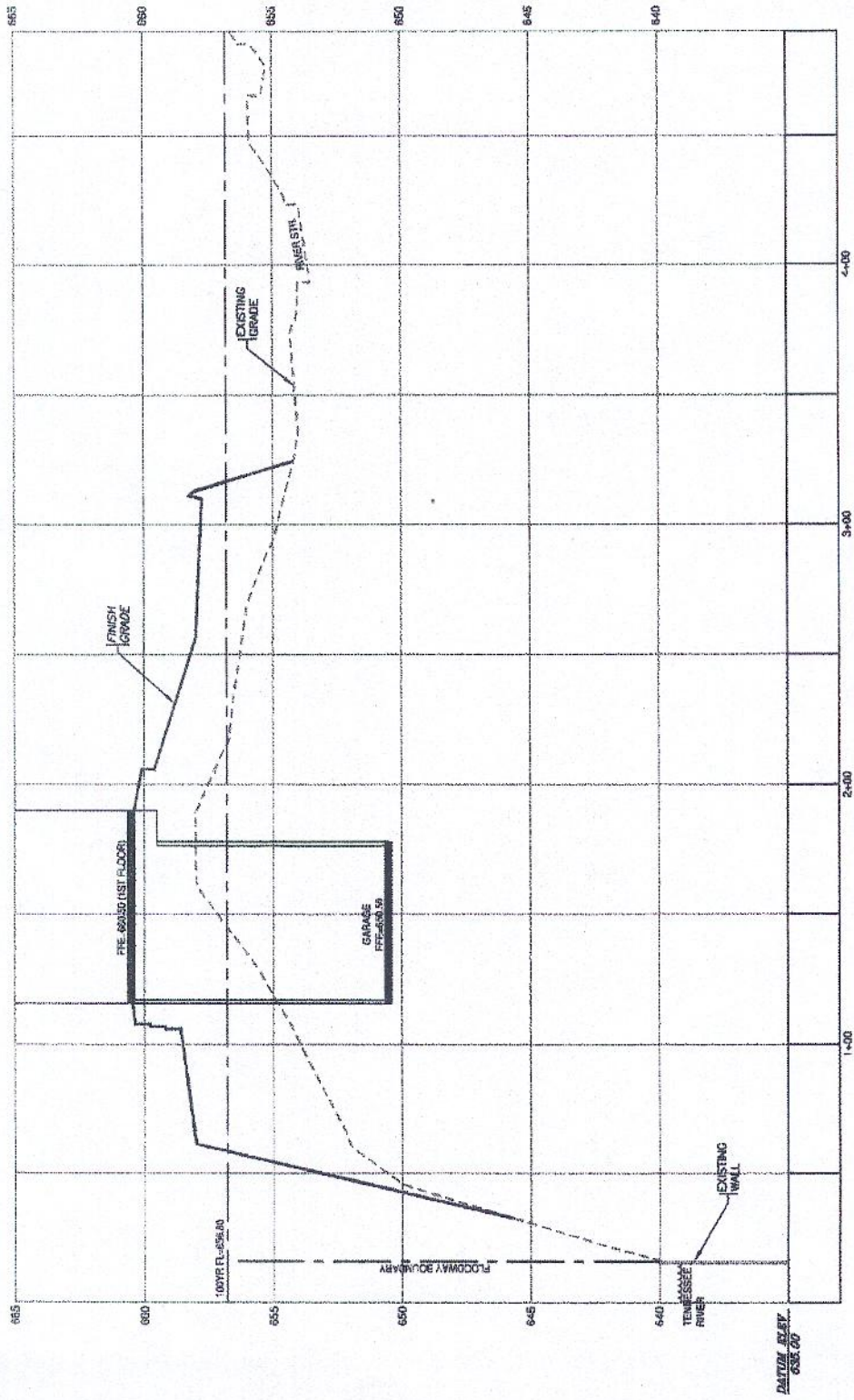
EXISTING AND NEW DRAINAGE SYSTEMS MUST BE SUBMITTED TO THE CITY OF CHATTANOOGA TECHNICAL INFORMATION OFFICE (TIO) WITHIN 30 DAYS.

DISBURSED ACREAGE - 0.46 ACRES  
 PRE-CONSTRUCTION IMPERVIOUS ACREAGE - 1.34 ACRES  
 POST-CONSTRUCTION IMPERVIOUS ACREAGE - 1.34 ACRES  
 NOTE: NUMBER OF CH. MONUMENTS ON SITE: 0

ALL RIGHTS RESERVED	DATE: 04/20/18	<b>MAP</b>
DESIGN BY: CEB	CHECKED BY: TWP	
REP. DATE: 04-18		



**Grading and Erosion Control Plan**  
SCALE: 1" = 30'



SECTION THRU PROPERTY  
 HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3'

**EROSION AND SEDIMENT CONTROL NOTES:**

1. CONTRACTOR IS TO ADHERE TO THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK; AND THE BEST MANAGEMENT PRACTICES MANUAL OF THE STORM WATER MANAGEMENT DEPARTMENT OF PUBLIC WORKS FOR THE CITY OF CHATTANOOGA.
2. SEDIMENT AND EROSION CONTROL FACILITIES, AND STORM DRAINAGE FACILITIES SHALL BE CONSTRUCTED PRIOR TO ANY OTHER CONSTRUCTION.
3. ALL GRADED AREAS SHALL BE STABILIZED WITH A TEMPORARY FAST GROWING COVER AND/OR MULCH, NO LATER THAN 2 WEEKS AFTER EARTH DISTURBING ACTIVITY ENDS IN THOSE AREAS WHERE GRADING ACTIVITY HAS CEASED AND FINE GRADING WILL NOT TAKE PLACE FOR AT LEAST 15 DAYS.
4. CONTRACTOR SHALL BE RESPONSIBLE DURING CONSTRUCTION FOR THE CONTINUOUS MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES AS CALLED FOR ON THE DRAWINGS AND PER NOTE 1 OF THIS SECTION.
5. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE AFTER THIS CONTRACT EXPIRES.
6. ADDITIONAL EROSION CONTROL DEVICES SHALL BE USED AS REQUIRED.
7. SILT FENCE AND/OR HAY BALES SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO WITHIN ONE FOOT OF TOP OF SILT FENCE AND/OR HAY BALES OR CAPACITY IS REDUCED BY 50%.
8. MAXIMUM EMBANKMENT SLOPES TO BE AS FOLLOWS: CUT AREA 2:1; FILL AREAS 2:1 (UNLESS NOTED OTHERWISE).
9. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED, REPAIRED AS NEEDED AND CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
10. SEEDING AND FERTILIZING RATES FOR TEMPORARY AND PERMANENT STANDS OF GRASS SHALL BE PER THE CITY OF CHATTANOOGA BEST MANAGEMENT PRACTICES MANUAL OF THE STORM WATER DEPARTMENT OF PUBLIC WORKS FOR THE CITY OF CHATTANOOGA.
11. IF FINES OR PENALTIES ARE LEVIED AGAINST THE PROPERTY OR PROPERTY OWNER BECAUSE OF LACK OF EROSION AND/OR SEDIMENT CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF SUCH FINES OR PENALTIES OR THE COSTS OF ANY FINES OR PENALTIES SHALL BE DEDUCTED FROM THE CONTRACT AMOUNT.
12. ALL SIDE DITCHES TO BE CLEANED AND/OR REGRADED TO PROVIDE PROPER DRAINAGE.
13. TOPSOIL IS TO BE SPREAD OVER LAWN AREAS AT COMPLETION OF CONTRACT (PROVIDE 4" MINIMUM SPREAD).
14. NEW FINISHED CONTOURS SHOWN ARE TOP OF PAVEMENT AND TOP OF TOPSOIL IN AREAS TO BE SEEDED.
15. GRADING CONTRACTOR SHALL COOPERATE AND WORK WITH ALL OTHER CONTRACTORS PERFORMING WORK ON THIS PROJECT TO INSURE PROPER AND TIMELY COMPLETION OF THIS PROJECT.
16. THE GRADING CONTRACTOR SHALL USE WHATEVER MEASURES ARE REQUIRED TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL EROSION, CONSERVATION AND SILTATION ORDINANCES. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND NOT BEFORE ALL AREAS DRAINING INTO THESE STRUCTURES ARE SUFFICIENTLY STABILIZED.
17. THE GRADING CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. THE CONTRACTOR SHALL CONTROL DUST BY SPRINKLING, OR BY OTHER METHODS AS DIRECTED BY THE ENGINEER AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO OWNER.
18. IN NO CASE SHALL ANY PAVED AREAS BE LESS THAN 1.00% UNLESS OTHERWISE NOTED.
19. IT IS THE INTENT OF THIS PROJECT FOR THE CONTRACTOR TO VERIFY AND MATCH EXISTING CONDITIONS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER / ARCHITECT OF ANY ITEMS THAT DO NOT EXIST AS SHOWN.
20. THE CONTRACTOR SHALL REPAIR OR REPLACE IN-KIND ANY DAMAGE THAT OCCURS AS RESULT OF HIS WORK.
21. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
22. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
23. ALL AREAS DISTURBED BY SITE GRADING CONTRACTOR THAT ARE NOT COVERED BY BUILDINGS OR PAVEMENT SHALL BE GRASSED PER REQUIREMENTS OF THE CONTRACT DOCUMENTS.
24. NO WORK SHALL OCCUR OFFSITE ON PROPERTY OWNED BY OTHERS WITHOUT OWNER AND/OR CONTRACTOR OBTAINING WRITTEN PERMISSION TO DO SO.
25. SITE EROSION CONTROLS SHALL BE CHECKED AND IF NECESSARY, REPAIRED WEEKLY AND WITHIN 24 HOURS AFTER EACH RAINFALL GREATER THAN 0.5". IN THE EVENT OF CONTINUOUS RAINFALL, EROSION CONTROLS SHALL BE CHECKED DAILY.
26. UPON COMPLETION OF THE PROJECT, "RECORD" DRAWINGS MUST BE SUBMITTED TO THE JURISDICTIONAL ENGINEER WITHIN 30 DAYS.
27. THE OWNER SHALL HAVE AN INDEPENDENT TESTING AGENCY TO TEST AND APPROVE PROOFROLLING, COMPACTION, UNDERCUTTING AND OTHER TESTS AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE TESTING AGENCY FOR ANY AND ALL REQUIRED SITE TESTING.

28. CONTRACTOR SHALL REFER TO AND ADHERE TO A GEOTECHNICAL REPORT PREPARED BY TRI-STATE TESTING & DRILLING (TS 05-001) DATED JANUARY 31, 2005 AND ADDENDUM DATED 05/18/2005 FOR ADDITIONAL GEOTECHNICAL INFORMATION AND RECOMMENDATIONS.

**COMPACTION REQUIREMENT NOTES:**

1. REMOVE SURFACE VEGETATION, TOPSOIL, FOUNDATIONS, SLABS, PAVEMENTS, ROOT SYSTEMS, ORGANIC MATERIAL, EXISTING FILL, AND SOFT OR OTHERWISE UNSUITABLE MATERIAL FROM THE BUILDING AND PAVEMENT AREA. ALL AREAS TO RECEIVE FILL OR CUT TO GRADE SHALL BE PROOFROLLED IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER FOR ALL PROOFROLLING. REMOVE AND REPLACE UNSUITABLE AREAS WITH SUITABLE MATERIAL. FILL MATERIAL SHALL BE FREE OF ORGANIC, AND OTHER DELETERIOUS MATERIALS AND ROCK FRAGMENTS LARGER THAN 2 INCHES AND BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR

**LAND DISTURBING ACTIVITY NOTES:**

**VEGETATION:** TOP SOIL WILL BE SALVAGED, STOCK PILED AND SPREAD ON AREAS TO BE VEGETATED. TREES OUTSIDE OF THE CLEARING LINE WILL BE PROTECTED FROM DAMAGE BY APPROPRIATE MARKINGS. SUPPLEMENTAL VEGETATION WILL BE ESTABLISHED.

**EROSION CONTROL PROGRAM:** CLEARING WILL BE KEPT TO A MINIMUM. VEGETATION AND MULCH WILL BE APPLIED TO APPLICABLE AREAS IMMEDIATELY AFTER GRADING IS COMPLETED. LAND DISTURBING WILL BE EMPLOYED TO PREVENT EROSION IN AREAS OF CONCENTRATED WATER FLOWS. EROSION AT THE EXITS OF ALL STORM WATER STRUCTURES WILL BE PREVENTED BY THE INSTALLATION OF STORM DRAIN OUTLET PROTECTION DEVICES.

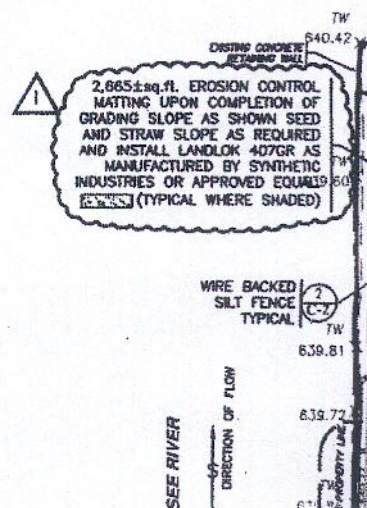
**SEDIMENT CONTROL PROGRAM:** SEDIMENT CONTROL WILL BE ACCOMPLISHED BY THE INSTALLATION OF SEDIMENT BASINS, SEDIMENT FENCES AND ADDITIONAL MEASURES AS REQUIRED. DIVERSIONS AND DIKES WILL BE INSTALLED TO DIVERT SEDIMENT LADEN RUNOFF INTO THE SEDIMENT BASINS AND TO PROTECT CUT AND FILL SLOPES FROM EROSION WATER FLOWS. A TEMPORARY CONSTRUCTION EXIT WILL BE EMPLOYED TO PREVENT THE TRANSPORT OF SEDIMENT FROM SITE BY VEHICULAR TRAFFIC.

**STANDARDS AND SPECIFICATIONS:** ALL DESIGNS WILL CONFORM TO AND ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICS OF THE PUBLICATION ENTITLED "MANUAL FOR EROSION AND SEDIMENT CONTROL IN TENNESSEE."

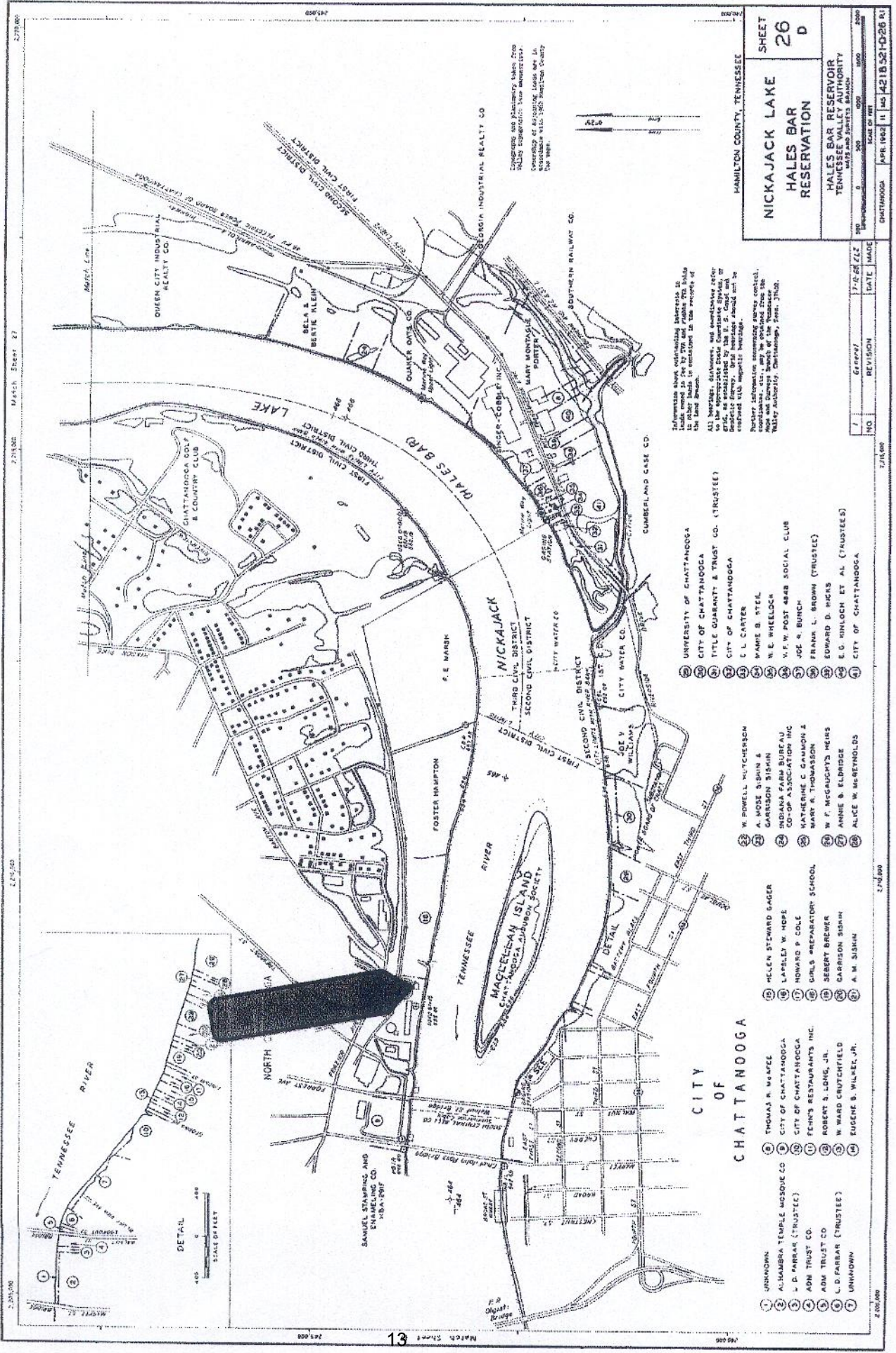
**SAFETY PROTECTION:** CONSTRUCTION ACTIVITIES WILL BE PERFORMED IN COMPLIANCE WITH WITH ALL APPLICABLE LAWS, RULES AND REGULATIONS. PERMANENT STORM WATER DETENTION STRUCTURES WILL BE POSTED AND FENCED TO EXCLUDE CHILDREN.

**MAINTENANCE PROGRAM:** SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSPECTED DAILY. ANY DAMAGES OBSERVED WILL BE REPAIRED BY THE END OF THAT DAY. CLEAN OUT OF SEDIMENT CONTROL STRUCTURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE SPECIFICATIONS AND SEDIMENT DISPOSAL ACCOMPLISHED BY SPREADING ON THE SITE. SEDIMENT BASINS AND BARRIERS WILL REMAIN IN PLACE UNTIL SEDIMENT CONTRIBUTING AREAS ARE STABILIZED. SEDIMENT BASINS, THE SEDIMENT FENCES, AND THE BARRIERS WILL THEN BE REMOVED AND THE AREAS OCCUPIED BY THESE STRUCTURES VEGETATED. GUIDELINES FOR THE MAINTENANCE OF ESTABLISHED VEGETATION WILL BE PROVIDED TO THE OWNER WHEN ALL DISTURBED AREAS ARE STABILIZED.

**NOTE:** EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE CONTROL. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.







HAMILTON COUNTY, TENNESSEE

**SHEET 26 D**

**NICKAJACK LAKE HALES BAR RESERVATION**

HALES BAR RESERVOIR  
TENNESSEE VALLEY AUTHORITY  
WATS AND JAMES BROS.

DATE: APR. 1921  
SCALE OF FEET: 1" = 400'

Information shown on this plat is based on the plat and other data filed in the office of the Hamilton County Clerk, Tennessee, and is subject to the provisions of the laws of the State of Tennessee.

All bearings, distances, and boundary lines are as shown on the plat and are subject to the provisions of the laws of the State of Tennessee.

Further information concerning survey control monuments, etc., may be obtained from the Valley Authority, Chattanooga, Tenn. 37402.

- 1 UNIVERSITY OF CHATTANOOGA
- 2 CITY OF CHATTANOOGA
- 3 CITY OF CHATTANOOGA
- 4 TITLE GUARANTY & TRUST CO. (TRUSTEE)
- 5 CITY OF CHATTANOOGA
- 6 C. L. CARTER
- 7 W. R. STEEL
- 8 W. E. WHEELOCK
- 9 V. F. W. POST 4848 SOCIAL CLUB
- 10 JOE R. BUNCH
- 11 FRANK L. BROWN (TRUSTEE)
- 12 EDWARD D. RICKS
- 13 E. G. HINLOCK ET AL (TRUSTEES)
- 14 CITY OF CHATTANOOGA

- 15 W. POWELL HUTCHESON
- 16 A. MOSE BISHN & GARRISON BISHN
- 17 INDIANA FARM BUREAU CO-OP ASSOCIATION INC
- 18 KATHERINE C. GAWSON & MARY A. THOMPSON
- 19 W. F. MCGAUGHY'S HEIRS
- 20 ANNE & ELDRIDGE
- 21 ALICE W. MCGREYNOLDS

- 22 HELEN STEWARD GAGER
- 23 LAUREL W. HOPE
- 24 HOWARD P. COLE
- 25 GIRLS PREPARATORY SCHOOL
- 26 DEBERT BREWER
- 27 GARRISON BISHN
- 28 A. M. BISHN

- 29 THOMAS R. WATKINS
- 30 CITY OF CHATTANOOGA
- 31 CITY OF CHATTANOOGA
- 32 PECH'S RESTAURANTS INC.
- 33 ROBERT S. LONG, JR.
- 34 W. WARD CRUTCHFIELD
- 35 EUGENE S. WILKIE, JR.

- 36 UNKNOWN
- 37 ALAMBIA TEMPLE WOODS CO
- 38 L. D. FARRAR (TRUSTEE)
- 39 ADM TRUST CO.
- 40 ADM TRUST CO.
- 41 L. D. FARRAR (TRUSTEE)
- 42 UNKNOWN



North  
Chattanooga

Deep Ditch Lt. &  
Daymark 467.5

POWERLINE  
CL. @ NORMAL POOL 89.0'  
CL. @ HIGH WATER 61.0'

BRIDGE  
CL. @ NORMAL POOL 75.8'  
CL. @ HIGH WATER 49.3'

BRIDGE  
CL. @ NORMAL POOL 59.6'  
CL. @ HIGH WATER 32.9'

BRIDGE  
NORMAL POOL 73.0'  
HIGH WATER 46.0'

58

MARINE WAY UPPER LT.  
& DAYMARK 465.9

MARINE WAY LT. &  
DAYMARK 465.6

SS'S LANDING  
MARINA

TENNESSEE  
AQUARIUM

CHATTANOOGA

HIGHLAND  
PARK

Chattanooga  
Creek

MISSIONARY

# Attachment 2

(4 pages)



TENNESSEE VALLEY AUTHORITY

[TVA Home](#) [About TVA](#) [Power System](#) [Environmental Stewardship](#) [River System](#) [Economic Development](#) [Investor Resources](#) [News & Media](#)

## Public Notice

August 14, 2008

### Proposed Action

Placement of fill

### Location

Tennessee River mile 464.5R on Nickajack Reservoir,  
Chattanooga, Tennessee

### Description

Notice is hereby given that TVA, in accordance with Section 26a of the TVA Act, proposes to permit the placement of approximately 3,800 cubic yards of fill in order to enable construction of luxury condominiums at 600 River Street, in downtown Chattanooga, Tennessee. The location of the proposed fill and development is adjacent to Tennessee River mile 464.5R on Nickajack Reservoir.

The fill is necessary in order to bring the elevation of the proposed condominiums to a minimum of two feet above the 100-year flood elevation so that the proposed development will be in compliance with the City of Chattanooga's floodplain ordinance. The areas around the building and parking areas will also be brought above the 100-year floodplain.

The fill would be located within the limits of the Tennessee River 100-year floodplain and is therefore subject to the requirements of Presidential Executive Order 11988 on Floodplain Management. In order to construct the luxury condominiums, there is no practicable alternative to placing the fill within the 100-year floodplain.

All practicable design measures to minimize harm to the floodplain have been identified and would be required by TVA. These measures include requirements that:

- No additional fill beyond that needed for

construction of the condominiums, areas around the building, and parking areas would be placed in the 100-year floodplain.

- The finished floor of the condominiums would be elevated a minimum of two feet above the 100-year flood elevation.
- Best management practices would be used during placement of fill (and construction of the condominiums).

TVA has concluded that the proposed project is consistent with Executive Order 11988 because:

1. There is no practicable alternative to locating in the floodplain.
2. The proposed project would be designed to minimize to the extent practicable harm to or within the floodplain.
3. The proposed project would conform with applicable state and local floodplain regulations.
4. Identifiable impacts to the floodplain are negligible.

All written comments on this proposed action must be received on or before August 28, 2008, and should be directed to:

Dan Fisher  
TVA Chickamauga - Hiwassee Watershed Team  
1101 Market Street, PSC 1E  
Chattanooga, TN 37402-2801  
423-876-4177  
Fax: 423-876-4016

E-mail: [dfisher@tva.gov](mailto:dfisher@tva.gov)

▲ top of page

-----Original Message-----

From: tom kunesh [mailto:tpkunesh@chattanooga.net]

Sent: Monday, August 18, 2008 4:23 PM

To: Maher, Thomas O.; Pritchard, Erin E; Ellis, Bridgette K; Michael C. Moore; Suzanne Hoyal

Cc: Nick Honerkamp; Corky Allen; Pat Cummins; Michael Lynch; Val Ohle

Subject: MOA request

Bridgette K. Ellis <bkellis@tva.gov>  
TVA Federal Preservation Officer

Thomas O. Maher <tomaher@tva.gov>  
TVA Cultural Resources Manager, Tennessee Historical Commission

Erin Pritchard <eepritchard@tva.gov>  
TVA Archaeologist

Michael C. Moore <mike.c.moore@state.tn.us>  
Tennessee State Archaeologist

Suzanne Hoyal <suzanne.hoyal@state.tn.us>  
TN Div of Archaeology

ref. Chattanooga Times Free Press, Saturday, August 16, 2008, Front Page  
<http://www.timesfreepress.com/news/2008/aug/16/chattanooga-developer-doing-north-shore-artifact-d/>  
>Developer authorizes North Shore artifact dig

TVA Cultural Resources Staff -

I understand that there is an archaeological dig on a known Native American site on private property in Chattanooga that required permission from TVA.

Section 106 of the National Historic Preservation Act mandates that federally-recognized tribes be contacted and a plan of action be agreed upon in this situation. I have not seen or heard of any notice to the tribes or to the state representatives of the Native American Indian community, and would like to check up on why we haven't received notice.

I would appreciate receiving the following documents:

1. Notice to TVA's list of potentially culturally-related tribes,
2. All responses from the contacted tribes and any other Native American groups,
3. The Memorandum of Agreement under which the archaeologist is digging the site.

Thank you in advance for your time and consideration.

; >

-----  
tom kunesh <tpkunesh@chattanooga.net>  
member, TN Commission of Indian Affairs  
[www.tdec.net/tcia/](http://www.tdec.net/tcia/) 423. 624.3380  
box 1063 Chattanooga TN 37401

**Parr, Kenneth P**

---

**From:** Parr, Kenneth P  
**Sent:** Wednesday, October 01, 2008 1:45 PM  
**To:** Parr, Kenneth P  
**Subject:** FW: MOA request

-----Original Message-----

From: Maher, Thomas O.  
Sent: Tuesday, September 02, 2008 3:55 PM  
To: 'tom kunesh'  
Subject: RE: MOA request

Hi Tom,

Thank you for your e-mail of August 18, 2008. I agree that the sudden appearance of an article in the Chattanooga Times Free Press about full-scale archaeological excavations in Chattanooga is surprising. This is one of those projects that started very small and very slowly built in complexity over time. Mr. Defoor submitted an application for a 26a permit in 2005. The only reason he needed a permit was because he wanted to put fill material on his private lot for landscaping and to get the land surface above the 100 year flood plain. TVA doesn't own any land there and we don't even have the right to store water on his land (a.k.a. flood/flowage easement). I'm sure you will agree that given the location of this development it was best to ask for a phase I survey. The results of that survey indicated that there was a prehistoric archaeological site present in the footprint of the proposed building. We sent the report to the Tennessee State Historic Preservation Officer (SHPO) and the duly designated representatives of the federally recognized American Indian Tribes with whom TVA regularly consults. As a result of the content of the report we requested a phase II survey to see if the site was eligible for the National Register of Historic Places (NRHP). Since it was located on a floodplain we asked for core samples to be taken as part of the phase II to determine if there were deep archaeological deposits present. An interesting layer cake of prehistoric occupations was discovered. The deepest occupation was a rare Archaic layer that was determined eligible for the NRHP under Criterion D. The phase II report was also sent to the TN-SHPO and the duly designated representatives of the federally recognized tribes.


If you have been to the site, you know it is narrow with a bridge on one side and condos on the other. After lengthy discussions a scope of work (SOW) was developed that would focus on the deep, rare, archaic occupation in this project area. This SOW entails the use of heavy equipment to safely access these deposits. Although avoidance is a preferred alternative in historic preservation, it is not always the only alternative, particularly when dealing with archaeological sites on private land. The MOA and SOW have been sent to both the THPOs and SHPOs and, based on the newspaper article, the work has begun. Since this site is on private property and the only federal action is a permit to place fill materials in the flood plain, I believe that quite a lot has been accomplished to preserve the past and to better understand occupations before us.

Yours truly,

Tom

**InsideNet** *online resources for tva employees*

Home Contents Organizations News Self Service Solutions Search &



### Categorical Exclusion Checklist Information about CEC 10341

**NEPA User:**  
Kenneth P Parr

Select Option

- CEC Main Menu
- Help
- Contacts
- CEC Commitments Main Menu
- EA/EIS Commitments Main Menu
- Environmental Information Center

<b>Checklist Preparer</b>	Daniel C. Fisher	
<b>Date Started</b>	07/13/2005	
<b>Initiating Organization</b>	RSOE - Resource Stewardship	
<b>Initiating Org Tracking ID</b>	168025	
<b>ALIS ID(s)</b>	168025	
<b>Project Initiator/Manager</b>	Daniel C. Fisher	
<b>Project Title</b>	26a 168025 - Fill for River Street Luxury Condos - Defoor Brothers - Chattanooga, TN - no TVA Lnad or Landrights	
<b>Description of Proposed Action</b>	Land Activity Type: 26a Applicant(s): Mr. Ken Defoor Defoor Brothers Development 6074 Shallowford Road Chattanooga TN 37421	
<b>TVA Facility</b>	Chickamauga-Hiwassee Watershed Team	
<b>Location Description</b>	Reservoir Name: Chickamauga Stream(s): Tennessee R RM 464.5R Map Sheet(s): 105 SE Quad Sheet 26 C/D Stage Facility(s): Fill - Other	
<b>Primary Media Expert Reviewer(s)</b>	Daniel C. Fisher Ella C. Guinn (Tina) * Kelie H Hammond Martin B High II Roger A. Milstead	ongoing complete 01/19/2007 complete 07/29/2005 complete 07/14/2005 complete 09/27/2005
<b>Secondary Media Expert Reviewer(s)</b>	Thomas O Maher	ongoing
<b>Review/Concurrence</b>	T. Margueritte Wilson Daniel C. Fisher	not signed not signed
<b>Additional Closer</b>	Preparer Only	
<b>Due Date</b>	08/01/2005	
<b>Business Sensitive</b>	No	
<b>CEC Status</b>	Open	

\* Denotes reviewer who coordinates secondary media reviewers

## Categorical Exclusion Checklist for Proposed TVA Actions

Categorical Exclusion Number Claimed	Organization ID Number 168025	Tracking Number (NEPA Administration Use Only) 10341
Form Preparer Daniel C. Fisher	Project Initiator/Manager Daniel C. Fisher	Business Unit RSOE - Resource Stewardship
Project Title 26a 168025 - Fill for River Street Luxury Condos - Defoor Brothers - Chattanooga, TN - no TVA Lnad o		Hydrologic Unit Code
Description of Proposed Action (Include Anticipated Dates of Implementation) <input type="checkbox"/> Continued on Page 3 (if more than one line) Land Activity Type: 26a Applicant(s): Mr. Ken Defoor Defoor Brothers Development 6074 Shallowford Road Chattanooga TN 37421		
Initiating TVA Facility or Office Chickamauga-Hiwassee Watershed Team	TVA Business Units Involved in Project RSOE - Resource Stewardship	
Location (City, County, State) For Project Location see Attachments and References		

Parts 1 through 4 verify that there are no extraordinary circumstances associated with this action:

### Part 1. Project Characteristics

Is there evidence that the proposed action---	No	Yes	Information Source
1. Is major in scope?	X		Fisher D. C. 08/13/2008
2. Is part of a larger project proposal involving other TVA actions or other federal agencies?	X		Fisher D. C. 08/13/2008
*3. Involves non-routine mitigation to avoid adverse impacts?		X	For comments see attachments
4. Is opposed by another federal, state, or local government agency?	X		Fisher D. C. 08/13/2008
*5. Has environmental effects which are controversial?	X		For comments see attachments
*6. Is one of many actions that will affect the same resources?	X		Fisher D. C. 08/13/2008
7. Involves more than minor amount of land?	X		Fisher D. C. 08/13/2008

\* If "yes" is marked for any of the above boxes, consult with NEPA Administration on the suitability of this project for a categorical exclusion.

### Part 2. Natural and Cultural Features Affected

Would the proposed action---	No	Yes	Permit	Commitment	Information Source for Insignificance
1. Potentially affect endangered, threatened, or special status species?	X		No	No	For comments see attachments
2. Potentially affect historic structures, historic sites, Native American religious or cultural properties, or archaeological sites?		X	No	No	For comments see attachments
3. Potentially take prime or unique farmland out of production?	X		No	No	Fisher D. C. 08/13/2008
4. Potentially affect Wild and Scenic Rivers or their tributaries?	X		No	No	Fisher D. C. 08/13/2008
5. Potentially affect a stream on the Nationwide Rivers Inventory?	X		No	No	Fisher D. C. 08/13/2008
6. Potentially affect wetlands, water flow, or stream channels?	X		No	No	High II M. B. 07/14/2005
7. Potentially affect the 100-year floodplain?		X	No	No	For comments see attachments
8. Potentially affect ecologically critical areas, federal, state, or local park lands, national or state forests, wilderness areas, scenic areas, wildlife management areas, recreational areas, greenways, or trails?	X		No	No	For comments see attachments
9. Contribute to the spread of exotic or invasive species?	X		No	No	High II M. B. 07/14/2005
10. Potentially affect migratory bird populations?	X		No	No	High II M. B. 07/14/2005
11. Involve water withdrawal of a magnitude that may affect aquatic life or involve interbasin transfer of water?	X		No	No	Fisher D. C. 08/13/2008
12. Potentially affect surface water?	X		No	No	Fisher D. C. 08/13/2008
13. Potentially affect drinking water supply?	X		No	No	Fisher D. C. 08/13/2008
14. Potentially affect groundwater?	X		No	No	Fisher D. C. 08/13/2008
15. Potentially affect unique or important terrestrial habitat?	X		No	No	High II M. B. 07/14/2005
16. Potentially affect unique or important aquatic habitat?	X		No	No	Fisher D. C. 08/13/2008



### Part 3. Potential Pollutant Generation

Would the proposed action potentially (including accidental or unplanned)---	No	Yes	Permit	Commitment	Information Source for Insignificance
1. Release air pollutants?	X		No	No	For comments see attachments
2. Generate water pollutants?	X		No	No	Fisher D. C. 08/13/2008
3. Generate wastewater streams?	X		Yes	No	Fisher D. C. 08/13/2008
4. Cause soil erosion?		X	Yes	No	For comments see attachments
5. Discharge dredged or fill materials?	X		No	No	Fisher D. C. 08/13/2008
6. Generate large amounts of solid waste or waste not ordinarily generated?	X		No	No	Fisher D. C. 08/13/2008
7. Generate or release hazardous waste (RCRA)?	X		No	No	Fisher D. C. 08/13/2008
8. Generate or release universal or special waste, or used oil?	X		No	No	Fisher D. C. 08/13/2008
9. Generate or release toxic substances (CERCLA, TSCA)?	X		No	No	Fisher D. C. 08/13/2008
10. Involve materials such as PCBs, solvents, asbestos, sandblasting material, mercury, lead, or paints?	X		No	No	Fisher D. C. 08/13/2008
11. Involve disturbance of pre-existing contamination?	X		No	No	Fisher D. C. 08/13/2008
12. Generate noise levels with off-site impacts?	X		No	No	For comments see attachments
13. Generate odor with off-site impacts?	X		No	No	Fisher D. C. 08/13/2008
14. Produce light which causes disturbance?	X		No	No	Fisher D. C. 08/13/2008
15. Release of radioactive materials?	X		No	No	Fisher D. C. 08/13/2008
16. Involve underground or above-ground storage tanks or bulk storage?	X		No	No	Fisher D. C. 08/13/2008
17. Involve materials that require special handling?	X		No	No	Fisher D. C. 08/13/2008

### Part 4. Social and Economic Effects

Would the proposed action---	No	Yes	Commitment	Information Source for Insignificance
1. Potentially cause public health effects?	X		No	Fisher D. C. 08/13/2008
2. Increase the potential for accidents affecting the public?	X		No	Fisher D. C. 08/13/2008
3. Cause the displacement or relocation of businesses, residences, cemeteries, or farms?	X		No	Fisher D. C. 08/13/2008
4. Contrast with existing land use, or potentially affect resources described as unique or significant in a federal, state, or local plan?	X		No	Fisher D. C. 08/13/2008
5. Disproportionately affect minority or low-income populations?	X		No	Fisher D. C. 08/13/2008
6. Involve genetically engineered organisms or materials?	X		No	Fisher D. C. 08/13/2008
7. Produce visual contrast or visual discord?	X		No	For comments see attachments
8. Potentially interfere with recreational or educational uses?	X		No	Fisher D. C. 08/13/2008
9. Potentially interfere with river or other navigation?	X		No	For comments see attachments
10. Potentially generate highway or railroad traffic problems?	X		No	For comments see attachments

### Part 5. Other Environmental Compliance/Reporting Issues

Would the proposed action---	No	Yes	Commitment	Information Source for Insignificance
1. Release or otherwise use substances on the Toxic Release Inventory list?	X		No	Fisher D. C. 08/13/2008
2. Involve a structure taller than 200 feet above ground level?	X		No	Fisher D. C. 08/13/2008
3. Involve site-specific chemical traffic control?	X		No	Fisher D. C. 08/13/2008
4. Require a site-specific emergency notification process?	X		No	Fisher D. C. 08/13/2008
5. Cause a modification to equipment with an environmental permit?	X		No	Fisher D. C. 08/13/2008
6. Potentially impact operation of the river system or require special water elevations or flow conditions??	X		No	Fisher D. C. 08/13/2008

Description of Proposed Action (Include Anticipated Dates of Implementation)

Continued from Page 1

Parts 1 through 4: If "yes" is checked, describe in the discussion section following this form why the effect is insignificant. Attach any conditions or commitments which will ensure insignificant impacts. Use of non-routine commitments to avoid significance is an indication that consultation with NEPA Administration is needed.

An  EA or  EIS will be prepared.

Based upon my review of environmental impacts, the discussions attached, and/or consultations with NEPA Administration, I have determined that the above action does not have a significant impact on the quality of the human environment and that no extraordinary circumstances exist. Therefore, this proposal qualifies for a categorical exclusion under Section 5.2. \_\_\_\_\_ of TVA NEPA Procedures.

Project Initiator/Manager Daniel C. Fisher		Date
TVA Organization RSO&E	E-mail dcfisher@tva.gov	Telephone

**Site Environmental Compliance Reviewer**

**Final Review/Closure**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

**Other Review Signatures (as required by your organization)**

T. Margueritte Wilson  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

**Attachments/References**

Project Title

26a 168025 - Fill for River Street Luxury Condos - Defoor Brothers - Chattanooga, TN - no TVA Lnad or Landrights

Project Location

Reservoir Name: Chickamauga Stream(s): Tennessee R RM 464.5R Map Sheet(s): 105 SE Quad Sheet 26 C/D Stage Facility(s): Fill - Other

CEC General Comment Listing

## CEC General Comment Listing

1. Unless otherwise noted, information source for responses to affected resources is based on the nature of the action and / or information obtained from TVA's Environmental Stewardship and Policy's Prescreening Criteria Checklist, revision date 7-25-2008.  
By: Daniel C. Fisher 08/13/2008
2. Due to potential for significant impacts to cultural and / or archeological resources discovered during the course of this review, an Environmental Assessment (EA) is being prepared by TVA. Please see the EA for further discussion.  
By: Daniel C. Fisher 08/13/2008
3. Application, Plans & Maps  
By: ALIS Added Comment  
Files: Application\_Plans\_LocationMaps.pdf 07/13/2005 1,316,657 Bytes
4. Pictures Taken 7-13-2005  
By: ALIS Added Comment  
Files: RiverStreetCondoFill.pdf 07/13/2005 696,642 Bytes
5. Floodplain Questions To Applicant  
By: ALIS Added Comment  
Files: FloodplainQuestionsToApplicant.pdf 07/14/2005 102,999 Bytes
6. Email Answer to questions on Docks and Floodplain  
By: ALIS Added Comment  
Files: EmailNoteOnDocks.pdf 07/14/2005 48,571 Bytes
7. Emails  
By: ALIS Added Comment  
Files: Emails5-11-2007.pdf 05/11/2007 104,126 Bytes
8. 5-25-2007 Email to Defoor's archeologist  
By: ALIS Added Comment  
Files: 5-25-2007\_EmailToApplicant'sArcheologist\_Phase\_3\_Negotiations.pdf 05/25/2007 516,445 Bytes

## CEC Comment Listing

### Part 1 Comments

3. Identification and evaluation of archaeological resources and historic structures have been conducted within the development, and TVA and the Tennessee State Historic Preservation Officer (TNSHPO) agree that archaeological site 40HA524 is eligible for listing in the National Register of Historic Places (NRHP). TVA, in consultation with the TNSHPO, has determined that the undertaking will adversely affect archaeological site 40HA524 and will require Phase 3 data recovery in order for the project to proceed.  
By: Daniel C. Fisher 08/13/2008
5. Federally recognized Indian tribes have been consulted, but no comments were obtained.  
By: Daniel C. Fisher 08/13/2008

### Part 2 Comments

1. '93 record of Heronry on Island. If colony is still active, there still would be no expected impacts. Planned erosion control to minimize abnormal siltation into the river results in no expected impacts to 'potential' aquatic species. No aquatic listed species currently known in that vicinity.  
By: Martin B High II 07/14/2005
2. See Environmental Assessment prepared for this action  
By: Daniel C. Fisher 08/13/2008
7. The proposed project involves the placement of fill within the 100-year floodplain for the construction of a building.

There is no practicable alternative to the proposed fill because the site must be elevated so the first floor of the building would be at least 2 feet above the 100-year flood elevation and the parking area below the building would not be flooded during the 100-year flood. Based on the August 16 e-mail from Richard Hutsell, Chattanooga Zoning official to Mike Price, MAP Engineers, the project would comply with Chattanooga's local floodplain regulations. Therefore, the proposed project would comply with Executive Order 11988. From the standpoint of Flood Control, we have no objection to the proposed project.

By: Roger A. Milstead 09/27/2005

8. Audubon Society is in charge of the nearby Island, but area on both sides of river is heavily urbanized with business operations and building, no impacts expected.

By: Martin B High II 07/14/2005

#### Part 3 Comments

1. Minor dust from construction operations will not be significant  
By: Daniel C. Fisher 08/13/2008
4. NPDES Stormwater permit will be required for fill in floodplain  
By: Daniel C. Fisher 08/13/2008
12. Temporary construction noise will not be significant in this downtown urban environment  
By: Daniel C. Fisher 08/13/2008

#### Part 4 Comments

7. Type of proposed building will match surrounding area  
By: Daniel C. Fisher 08/13/2008
9. Ken Defoor has submitted plans to place fill in the 100-year flood plain for construction of luxury condos at Tennessee River Mile 464.5R. There are existing docks fronting this site that were installed by Southern Bell for Riverbend loading and unloading. These docks are to be removed. There are no water-use facilities proposed for these condos. From a navigation standpoint, we have no problem with the proposed fill. We, therefore, recommend issuance of the requested permit.  
By: Kellie H Hammond 07/29/2005
10. Temporary construction impacts will not be significant  
By: Daniel C. Fisher 08/13/2008

#### CEC Permit Listing

#### Part 3 Permits

3. National Pollutant Discharge Elimination System Permit (402 Clean Water Act)  
By: Daniel C. Fisher 08/13/2008
4. National Pollutant Discharge Elimination System Permit (402 Clean Water Act)  
By: Daniel C. Fisher 08/13/2008

# Attachment 4

(2 pages)

Fisher, Daniel C.

---

From: Autumn Friday [a\_friday@bellsouth.net]  
Sent: Thursday, July 14, 2005 3:33 PM  
To: Fisher, Daniel C.  
Subject: Re: Riverstreet Cross-Section

Fisher, Daniel C. wrote:

>We received the signed 26a application form and processing fee July 6.  
>I did not receive: alternatives considered to fill below the 100-year  
>floodplain and why they were not practical, and what steps will be taken  
>to minimize adverse impacts to the 100-year floodplain, per the request  
>in my June 14 Email. Thanks

>  
>Dan

>  
>

>-----Original Message-----

>From: Autumn Friday [mailto:a\_friday@bellsouth.net]  
>Sent: Thursday, June 23, 2005 3:59 PM  
>To: Fisher, Daniel C.  
>Subject: Riverstreet Cross-Section

>  
>

>Dan,

>  
>Here is the cross-section through the site. I am sending the  
>application to you in the mail with the \$1000.00 check.

>  
>Please let me know if you need any additional information on the  
>cross-section.

>  
>Thanks,  
>Autumn Friday  
>MAP Engineers

>  
>

>  
>Dan,

I spoke with the owner and he indicated that Southern Bell installed the docks for Riverbend for loading/unloading. They were supposed to be removed after Riverbend. The owner has contacted Vince with Southern Belle to have the dock removed ASAP. There will be no docks for this site.

There were no alternatives to filling in the floodplain. The property had to be raised to construct the parking lot, if the parking lot was not raised the property would be in danger of flooding. There will be no adverse impacts to the floodplain (I am unsure if you are looking for any additional information for this).

I am not sure if this answers all of you question please let me know if you need any additional information.

Thanks,

Autumn Friday  
MAP Engineers  
423-855-5554

**Parr, Kenneth P**

---

**From:** Hutsell Richard [hutsell\_r@mail.chattanooga.gov]  
**Sent:** Tuesday, August 16, 2005 9:26 AM  
**To:** mapengr@bellsouth.net  
**Cc:** Yankowski Henry; Starnes Lee  
**Subject:** Defoor Development 600 River St.

Mr. Price,

My review of the grading and erosion plan indicates that this project will meet the City of Chattanooga requirements under the Zoning Ordinance Article V Ordinance No. 9741 Flood Hazard Zone Regulations. The plans indicate that the residential portion of the buildings lowest finished floor will be at or above the two feet (2) freeboard requirement, also the parking garage which is shown to be below BFE must also meet all required flood proofing with no mechanical equipment located below the BFE. If you need any additional information or assistance regarding this project please contact me anytime at 423-757-5438.

**Richard Hutsell**

Zoning Official  
City of Chattanooga  
423.757.5438  
hutsell\_r@mail.chattanoogagov

Development Resource Center  
1250 Market Street  
Suite 1000  
Chattanooga, TN 37402

# Attachment 5

(38 pages)

April 20, 2006

Ms. Jennifer Barnett  
Tennessee Division of Archaeology  
Cole Building #3  
1216 Foster Avenue  
Nashville, TN 37210

Dear Ms. Barnett:

TVA, ARCHAEOLOGICAL ASSESSMENT, PROPOSED DEED MODIFICATION,  
RHEA COUNTY, TENNESSEE

The Tennessee Valley Authority (TVA) is reviewing a request from Defoor Brothers Development (Developer) for a deed modification on a 2.5 acre tract on Nickajack Reservoir in Hamilton County, TN. (Tennessee River Mile 464.5R) The proposed deed modification will allow the developer to place fill within the current 100 year flood elevation for a residential development. Fill will be borrowed from a small tract located in the vicinity (Figure 1).

TVA determined the area of potential effects (APE) for this undertaking to be the 2.5 acre to be developed and the proposed borrow area. A field inspection of the APE was conducted by TVA staff on August 11, 2005. At this time, it was determined that the borrow area had a low potential for archaeological resources to be present. Examination of soil boring data indicated that the development tract contained fill that extended to depths of 1 foot to 8 feet across the property. At the request of TVA, the applicant conducted a Phase I archaeological survey that included deep testing within the APE. Please find attached a draft copy of the report titled *Phase I Archaeological Survey of a Proposed 2.5 Acre Development Parcel at Tennessee River (RM 464.5R) in Chattanooga, Hamilton, Tennessee*. One archaeological site was identified during this survey. TVA has reviewed the report and agrees with the report author's recommendation that site 40HA524 will require additional testing to determine its eligibility for listing in the National Register of Historic Places. In addition, TVA has several comments regarding the report. These comments are enclosed for your review.

It is our understanding the applicant wishes to pursue Phase II testing for this project to determine the sites eligibility status. TVA has prepared a scope of work (SOW) for this testing (enclosed).

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations at 36 CFR § 800, TVA:

1. is initiating consultation with your office;
2. has determined the APE to be the 2.5 acre development tract and borrow location;
3. finds that the borrow location has a low potential for archaeological resources to be present;
4. has determined that the project as currently proposed has the potential to affect site 40HA524 and that Phase II testing will be necessary to determine the eligibility for this site;
5. seeks your comments with the SOW for Phase II testing;
6. is consulting with the Eastern Band of Cherokee Indians, United Keetoowah Band, Cherokee Nation of Oklahoma, Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Thlopthlocco Tribal Town, Kialegee Tribal Town, Alabama-Quassarte Tribal Town, Alabama-Coushatta Tribe, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Absentee Shawnee of Oklahoma, Seminole Indian Tribe, Seminole Nation of Oklahoma, Jena Band of Choctaw Indians, and the Choctaw Nation of Oklahoma regarding historic properties that may have religious and/or cultural significance; and
7. seeks your concurrence with these findings and recommendations.

If you have any questions concerning this project feel free to contact Erin Pritchard at (865) 632-2463 or via email at [eepritchard@tva.gov](mailto:eepritchard@tva.gov).

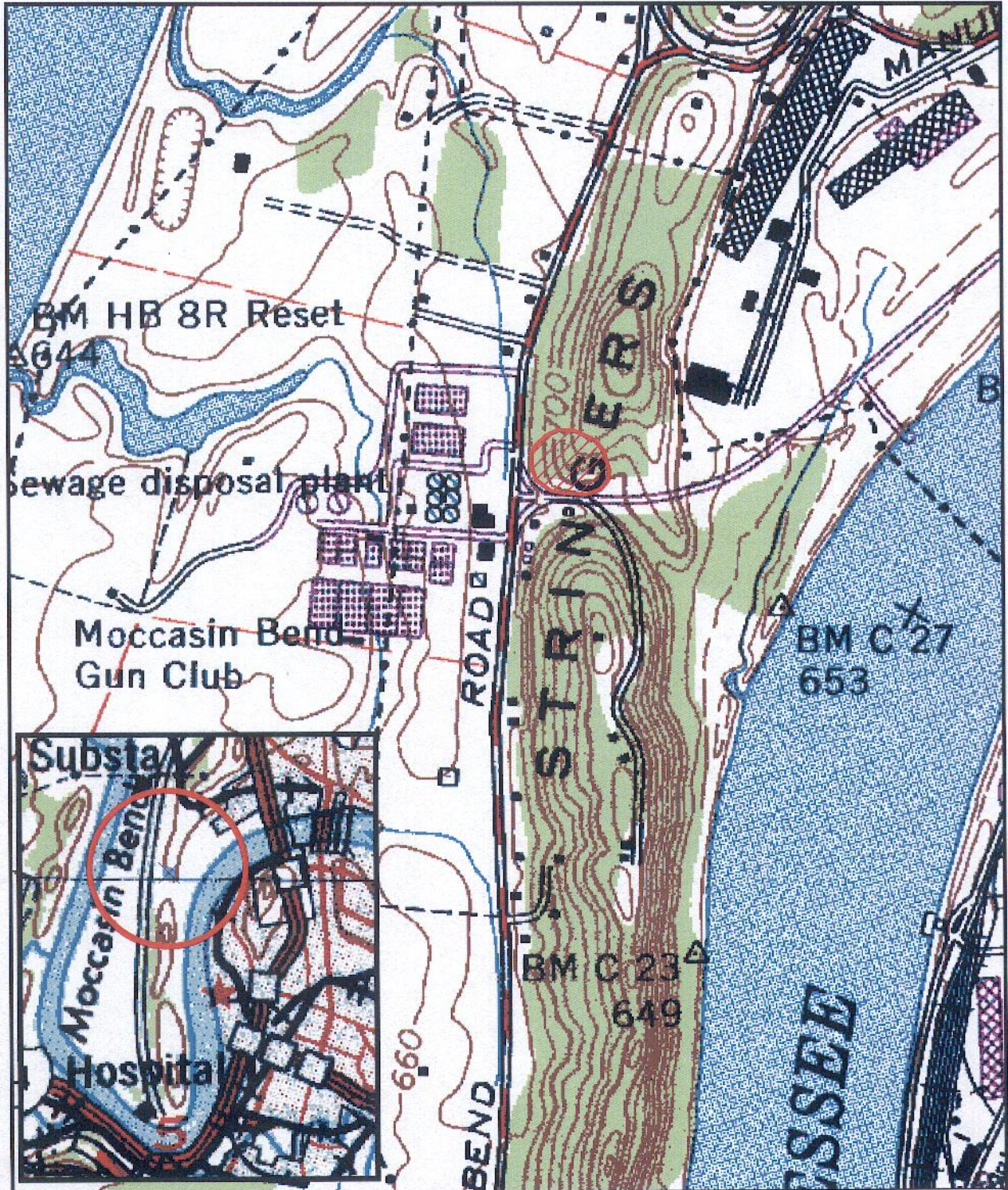
Sincerely,

J. Bennett Graham  
Manager  
Cultural Resources

ENCLOSURES

cc: Dan Fisher, PSC 1E-C





Defoors Condominium Development  
Borrow Location

Figure 1

 Borrow Location

0 2,125 4,250 8,500 12,750 17,000  
Feet





**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

April 27, 2006

Mr. J. Bennett Graham  
Tennessee Valley Authority  
400 W. Summit Hill Drive  
WT 11D - Cultural Resources  
Knoxville, Tennessee 37902

RE: TVA, PHASE I ARCHAEOLOGICAL ASSESSMENT, DEFOORS CONDO DEV'T/MOCCASIN BEND,  
CHATTANOOGA, HAMILTON COUNTY.

Dear Mr. Graham:

At your request, our office has reviewed the above-referenced archaeological survey report in accordance with regulations codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739). Based on the information provided, we concur that the project area contains archaeological resources potentially eligible for listing in the National Register of Historic Places and agree with the proposed Phase II archaeological testing scope of work included with your correspondence. Archaeological site 40HA524 should either be avoided by all ground-disturbing activities or subjected to Phase II archaeological testing.

Upon receipt of the Phase II testing report or avoidance strategy, we will complete our review of this undertaking as expeditiously as possible. Please submit a minimum of two copies of each final report to this office in accordance with the Tennessee Historical Commission Review and Compliance Section Reporting Standards and Guidelines. Complete and/or updated Tennessee Site Survey Forms should be submitted to the Tennessee Division of Archaeology. Until such time as this office has rendered a final comment on this project, your Section 106 obligation under federal law has not been met. Please inform this office if this project is canceled or not funded by the federal agency. Questions and comments may be directed to Jennifer M. Barnett (615) 741-1588, ext. 17.

Your cooperation is appreciated.

Sincerely,

Herbert L. Harper  
Executive Director and  
Deputy State Historic  
Preservation Officer

HLH/jmb

~~ARCHAEOLOGICAL ASSESSMENT~~



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1401

November 14, 2006

Ms. Jennifer Barnett  
Tennessee Division of Archaeology  
Cole Building #3  
1216 Foster Avenue  
Nashville, Tennessee 37210

Dear Ms. Barnett:

**TVA, ARCHAEOLOGICAL ASSESSMENT, PROPOSED 26A PERMIT, HAMILTON COUNTY, TENNESSEE**

As per previous consultation with your office, the Tennessee Valley Authority (TVA) is reviewing a 26a permit request from Defoor Brothers Development (Developer) for the placement of fill on a 2.5 acre tract on Nickajack Reservoir in Hamilton County, Tennessee (Tennessee River Mile 464.5R). The Developer intends to construct a residential structure.

Phase I survey of the property identified one archaeological site (40HA524) that was determined potentially eligible for listing in the National Register of Historic Places (NRHP). This site was recently subjected to Phase II testing to determine its eligibility status. The resulting report titled *Phase II Archaeological Investigations of a 2.5 Acre Development Parcel at Tennessee River Mile 464.5R in Chattanooga, Hamilton County, Tennessee* has been forwarded to your office by Alexander Archaeological Consultants, Inc. Site 40HA524 consists of a multi-component, deeply stratified site occupied as early as the Early Archaic through the Mississippian Period. TVA has reviewed the report and agrees with the author's recommendation that 40HA524 meets the criteria of eligibility for listing in the NRHP. Specifically, the site is eligible under Criterion D.

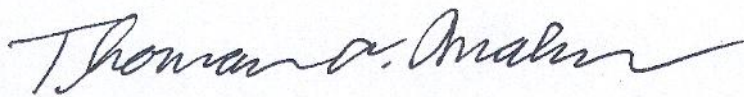
Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations at 36 CFR § 800, TVA:

1. finds that 40HA524 meets the criteria of eligibility for listing in the NRHP;
2. has determined that the project as currently proposed would have an adverse effect on site 40HA524;
3. is discussing alternatives with the Developer that might minimize or avoid the anticipated effect;

4. is consulting with the Eastern Band of Cherokee Indians, United Keetoowah Band, Cherokee Nation of Oklahoma, Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Thlopthlocco Tribal Town, Kialegee Tribal Town, Alabama-Quassarte Tribal Town, Alabama-Coushatta Tribe, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Absentee Shawnee of Oklahoma, Seminole Indian Tribe, Seminole Nation of Oklahoma, Jena Band of Choctaw Indians, and the Choctaw Nation of Oklahoma regarding historic properties that may have religious and/or cultural significance; and
5. seeks your concurrence with these findings and determinations.

If you have any questions concerning this project feel free to contact Erin Pritchard at (865) 632-2463 or via email at [eepritchard@tva.gov](mailto:eepritchard@tva.gov).

Sincerely,

A handwritten signature in cursive script that reads "Thomas O. Maher". The signature is written in black ink and is positioned above the typed name.

Thomas O. Maher  
Manager  
Cultural Resources



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499

June 5, 2008

Mr. E. Patrick McIntyre, Jr.  
Deputy State Historic Preservation Officer  
Tennessee Historical Commission  
2941 Lebanon Pike  
Nashville, Tennessee 37243-0442

Dear Mr. McIntyre:

**TVA, MEMORANDUM OF AGREEMENT AND SCOPE OF WORK FOR DATA RECOVERY OF 40HA524, DEFOORS CONDOS, PROPOSED 26A PERMIT, HAMILTON COUNTY, TENNESSEE**

As per our previous consultation with your office, the Tennessee Valley Authority (TVA) is reviewing a 26a permit request from Defoor Brothers Development (Developer) for a the placement of fill on a 2.5-acre private property tract on Nickajack Reservoir in Hamilton County, Tennessee (Tennessee River Mile 464.5R). The Developer intends to construct condominiums. Enclosed is our previous correspondence regarding this project.

TVA determined, in consultation with your office, that site 40HA524 meets the criteria of eligibility for listing in the National Register of Historic Places. In addition, it was determined that the project, as proposed, would adversely affect this historic property. TVA worked with the Developer to find alternatives to the site plan that would avoid or minimize adverse effects to the site. (See enclosed alternatives.) After careful consideration of these options, the Developer determined that the site cannot be avoided and will proceed with the project as previously planned.

Pursuant to 36 CFR Part 800.6(c), TVA proposes to enter into a Memorandum of Agreement (MOA) with your office to mitigate the effects of this undertaking. A draft MOA is enclosed for your review. TVA is also inviting the Eastern Band of Cherokee Indians, United Keetoowah Band, Cherokee Nation of Oklahoma, Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Thlopthlocco Tribal Town, Kialegee Tribal Town, Alabama-Quassarte Tribal Town, Alabama-Coushatta Tribe, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Absentee Shawnee of Oklahoma, Seminole Indian Tribe, Seminole Nation of Oklahoma, Jena Band of Choctaw Indians, and the Choctaw Nation of Oklahoma to be concurring parties to the MOA.

Mr. E. Patrick McIntyre, Jr.  
Page 2  
June 5, 2008

TVA has prepared a scope of work for Phase III data recovery of the site. In response to this scope of work, the Developer has submitted a proposal for the proposed excavation (enclosed). Please provide any comments you may have on the proposed mitigation.

Pursuant to 36 CFR Part 800.6 of the Advisory Council's regulations, TVA is notifying the Council of the adverse effect findings for the proposed project. Documentation pursuant to 36 CFR 800 Part 800.11(e) is also enclosed for your review.

TVA is seeking your comments on the proposed MOA to mitigate adverse effects. If you have any questions regarding this undertaking, please contact Erin Pritchard at 865.632.2463 or by email at [eepritchard@tva.gov](mailto:eepritchard@tva.gov).

Sincerely,

*Original signed by Thomas O. Maher*

Thomas O. Maher, Ph. D.  
Manager  
Cultural Resources

Enclosures

cc: Ms. Jennifer Barnett  
Tennessee Division of Archaeology  
1216 Foster Avenue, Cole Bldg. #3  
Nashville, Tennessee 37210

~~Archaeological~~ ~~12/12/05~~  
**Defoors Condo Project**  
**Alternatives for consideration\* - Section 106 Compliance**

~~to be presented to applicant on 12/12~~

**Alternative 1. Proceed with project as currently planned.**

The project as currently proposed would result in an adverse effect to archaeological site 40HA524. The adverse effect has been determined because: 1) the current plans call for the excavation of an underground parking facility; 2) the proposed plans will result in the "capping" of the site which will no longer allow access to the scientific data that qualifies it for listing in the National Register of Historic Places (NRHP); and 3) Building a large building on the property could result in the compaction of soils which could adversely effect the archaeological deposits contained within.

*Section 106 Finding: Adverse Effect to 40HA524*

*Process to be completed:* TVA would be required to consult with the Tennessee State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), sixteen Federally recognized Indian tribes (Tribes) with an interest in this area; and other consulting parties (including, but not limited to, the applicant). A Memorandum of Agreement (MOA) will be prepared to address the adverse effects to the site. This MOA will stipulate the treatment plan as agreed upon by TVA, the SHPO, and other consulting parties. The expected treatment plan would be data recovery of the site. Data recovery consists of the excavation of site 40HA524 to the extent that we can answer specified research question that will be defined in a specific research design prepared by TVA in consultation with the above parties. The research design will be included in the MOA. Additional costs will be incurred for requirements under the National Environmental Policy Act (NEPA).

*Estimated Schedule:* Consultation and preparation of the MOA would likely take several months to prepare and complete. Once the MOA is executed, data recovery of the site can proceed. Data recovery could take 3-4 months. TVA would receive a management summary within 2-3 weeks of completion of the fieldwork. This summary would need to be reviewed by all consulting parties. At this time, if agreed upon by all consulting parties and specified in the MOA, construction of the proposed condo site can begin. Construction can proceed as originally planned. Preparation of the final report could take 6-8 months and receipt of final report is not required prior to initiation of construction.

**Total Time:**

Consultation/MOA preparation	3-4 months
Data Recovery/Field investigation	3-4 months
Management Summary (MS)	2-3 weeks
Consulting party review of MS	30 days
Preparation of final report	6-8 months

*Estimated Costs:* Costs would include the contract budget for excavation and report preparation which is estimated to be anywhere from \$300,000 to \$600,000 depending on the consultant and the research design. In addition to these costs, TVA would have administrative costs associated with the project that would include consultation with all parties, MOA preparation, field visits, and other related

administrative costs associated with these activities. These costs are estimated to be from \$15,000 to \$20,000. If there is significant Tribal concern regarding this project, we may be asked to conduct an onsite consultation meeting with the Tribes. If this should happen, there could be an additional \$50,000 in costs.

Total Costs: \$365,000 - 665,000

**Alternative 2. Applicant redesigns plans that would result in only partial impacts to the site.**

In this situation, the applicant could redesign plans so that only a portion of the archaeological site would be impacted. An example of this would be if the building (including underground parking facility) was readjusted to an L-shaped design or moved north of its existing planned location. TVA would find that only a portion of the site was being adversely affected through capping and compression of soils (see Alternative 1).

*Section 106 Finding: Adverse Effect to 40HA524*

*Process to be completed:* The process would be similar to Alternative 1 in that TVA would need to consult with the SHPO, the ACHP, Tribes, and other consulting parties on their determination of adverse effect. An MOA and research design would be prepared and we would proceed with partial excavation of site 40HA524. Additional costs will be incurred for requirements under the National Environmental Policy Act (NEPA).

*Estimated Schedule:* Similar to Alternative 1 - Consultation and preparation of the MOA would likely take several months to prepare and complete. Once the MOA is executed, data recovery of the site can proceed. Data recovery could take less time, perhaps only 2-3 months. TVA would receive a management summary within 2-3 weeks of completion of the fieldwork. This summary would need to be reviewed by all consulting parties. At this time, if agreed upon by all consulting parties and specified in the MOA, construction of the proposed condo site can begin. Construction can proceed as originally planned. Preparation of the final report could take 6-8 months and receipt of final report is not required prior to initiation of construction.

**Total Time:**

Consultation/MOA preparation	3-4 months
Data Recovery/Field investigation	2-3 months
Management Summary (MS)	2-3 weeks
Consulting party review of MS	30 days
Preparation of final report	4-6 months

*Estimated Costs:* Costs would be somewhat less than Alternative 1 but would likely not be significant due to the nature of the archaeological site and the logistics required to conduct excavations in a floodplain. An estimate for excavation and report preparation is \$250,000 to \$500,000 depending on the consultant and the research design. In addition to these costs, TVA would have the same administrative costs associated with consultation, MOA preparation, field visits, and other related administrative costs associated with these activities. These costs are



estimated to be from \$15,000 to \$20,000. If there is significant Tribal concern regarding this project, we may be asked to conduct an onsite consultation meeting with the Tribes. If this should happen, there could be an additional \$50,000 in costs.

Total Costs: \$315,000 - 565,000

**Alternative 3. Redesign the facility to where the parking lot fronts the river the building is behind. The building can include plans for an underground parking facility.**

If the development can be designed to where the building is located on the road side of the property (north), outside the site 40HA524 boundary, and the parking lot can be moved to the riverside (with conditions), then it might be possible for TVA to make a "No Adverse Effect" finding for the project. The parking lot would be restricted to the portion of 40HA524 with an existing cap of fill disturbance in order to protect archaeological deposits from disturbance resulting from its construction. The riverside terrace portion of the site that does not have a deposit of fill on the surface would need to be avoided by all construction activity. In this case, the parking lot capping would be considered a "reversible" effect, meaning that it would be possible to remove a parking lot to access the site in the future. In this case, the developer would be required to put a conservation easement or preservation covenant in the deed in order to ensure the future protection of the property. If these conditions are met, archaeological data recovery and the execution of an MOA would not be required.

*Section 106 Finding:* No Adverse Effect with conditions

*Process to be completed:* TVA would need to receive and review revised plans for the development. If plans meet the specified conditions, TVA would consult with the SHPO, Tribes, and other consulting parties to notify them of our finding of "no adverse effect". These parties would have 30 days to object to this finding. If the SHPO concurs and TVA does not receive any objections within the 30 day period, TVA can proceed with permit approval. If the SHPO does not concur, TVA would be required to consult with the ACHP.

*Estimated Schedule:* The schedule would include the time it takes to work with the applicant to prepare plans to avoid or reduce impacts to the site. TVA would then need time to prepare proper consultation materials to submit to all parties mentioned above. These parties would have 30 days to object.

Total time: Approximately 2-4 months (not including amount of time needed for applicant to acquire a redesign of the project)

*Estimated Costs:* Costs would include TVA's administrative costs to coordinate plans with the developer and prepare consultation documentation. These costs could range from \$10,000-15,000.

**Alternative 4. Redesign building so that it is avoiding a majority of site 40HA524. Underground parking facility is removed or relocated to the north/road side of the property below surface parking.**

Building plans would be moved approximately 20-25 meters back (north) of existing location. This would result in the capping of only a small portion of the site and would be considered insignificant. Placement of any necessary construction footers would need to be restricted to the existing disturbed deposits. If pilings are used, they would need to be reviewed by TVA to determine if they would result in a significant effect to the site. TVA would review the plan for pilings and make this determination in close consultation with the SHPO. The remaining portion of the site would need to be maintained as a "green space". Certain facilities and vegetation could be placed in this area upon review of plans. A conservation easement or preservation covenant would need to be placed in the deed in order to protect the site for the future.

*Section 106 Finding:* No Adverse Effect with conditions

*Process to be completed:* TVA would need to receive and review revised plans for the development. If the redesigned plans meet the specified conditions, TVA will consult with the SHPO, Tribes, and other consulting parties to notify them of our "no adverse effect" finding. These parties would have 30 days to object to this finding. If the SHPO concurs and TVA does not receive any objections within the 30 day period, TVA can proceed with permit approval. If the SHPO does not concur, we would be required to consult with the ACHP.

*Estimated Schedule:* The schedule would include the time it takes to work with the applicant to prepare plans to avoid or reduce impacts to the site. TVA would then need time to prepare proper consultation materials to submit to all parties mentioned above. These parties would have 30 days to object.

Total time: Approximately 2-4 months (not including amount of time needed for applicant to acquire a redesign of the project)

*Estimated Costs:* Costs would include TVA's administrative costs to coordinate plans with the developer and prepare consultation documentation. These costs could range from \$10,000-15,000.

**\*NOTES:**

All alternative schedules and estimated costs are assuming best case scenario. It is not anticipated at this time that TVA would receive major objections to these alternatives. If human remains are identified during excavation, there will likely be a significant delay in the excavation schedule for the project as all work will need to cease in the immediate vicinity of the discovery.

TVA cultural resources staff considered the alternative whereby the building is placed in the currently planned location (without the excavation of an underground parking facility). At this time, staff finds that this alternative would result in an adverse effect (with costs/time delays being the same as Alternative 1). Our finding of adverse effect is based on the following: 1) the proposed plans will result in the "capping" of the site which will no longer allow access to the scientific data that qualifies it for listing in the National Register of Historic Places (NRHP); and 2) Building a large building on the property could result in the compaction of soils which

could adversely effect the archaeological deposits contained within. Cultural staff believes that the SHPO would concur with our findings.

*A Proposal for*

**Phase III Archaeological Data Recovery of a Proposed 2.5 Acre  
Development Parcel at Tennessee River Mile 464.5R in Chattanooga,  
Hamilton County, Tennessee.**

**Presented To**

**MAP Engineers  
7380 Applegate Lane  
Chattanooga, Tennessee 37421  
423.855.5554; Fax 423.485.8110**

**And**

**Tennessee Valley Authority  
Office of Natural Resources  
400 W. Summit Hill Drive  
WT 11D-Cultural Resources  
Knoxville, Tennessee 37902  
865.632.2453 Fax 865.632.3853**

**Presented By**

**Dr. Nicholas Honerkamp, Director  
Jeffery L. Brown Institute of Archaeology  
University of Tennessee at Chattanooga  
615 McCallie Avenue  
Chattanooga, TN 37403**

**MAY 9, 2008**

## **Introduction**

In the summer of 2005, DeFoor Brothers Development requested a 26a permit from the Tennessee Valley Authority (TVA) for the construction of a residential development on the north shore of Nickajack Reservoir, Hamilton County, Tennessee. Based on Phase I and Phase II testing of 40HA524 by Alexander Archaeological Consultants, TVA determined that the site met the criteria of eligibility for the NRHP and would be adversely affected by the proposed project; the Tennessee SHPO concurred with this finding. Hence a Phase III excavation is necessary to investigate significant archaeological remains at the site. MAP Engineers of Chattanooga (hired by the DeFoor Brothers) contacted the Jeffery L. Brown Institute of Archaeology to carry out the final phase of archaeological fieldwork.

The project involves 2.5 acres on a parcel of land previously occupied by Fehn's Restaurant at Tennessee River Mile 464.5R in downtown Chattanooga. Following a short synopsis of previous research completed by Alexander Archaeological Consultants, a Phase III research plan is outlined that takes into consideration a number of components, including the TVA scope of work for the Phase III investigation, the site's floodplain environment, the location of modern disturbances such as sewer pipes, and the depth of areas to be excavated.

## **Previous Research**

In 2006, Alexander Archaeological Consultants, Inc., (AAC) conducted a Phase I survey of site 40HA524 that included the mechanical excavation of six backhoe slot trenches and the hand excavation of seven test units (50 cm by 50 cm) within the project area (Alexander 2006). Phase I testing determined that the site could be considered eligible for listing in the NRHP and could not be avoided by the proposed development. Using ACC, the project sponsor opted to move forward with Phase II testing to determine the site's eligibility.

AAC began Phase II testing in the summer of 2006 (Wolke and Alexander 2006). The testing consisted of four hand excavated and water screened test units. These units measured 1m x 2m and extended to a depth of 2 m. The units were adjacent to 2 track hoe excavated trenches which were 15 meters long and 1.6 meters wide; deep core samples were also taken. Results of this testing indicate the site may have been occupied into the Early Archaic period (8000 B.C.). Occupation of the site continued through the Woodland period (1000 B.C. to A.D. 1000) and into the Mississippian period (A.D. 1000-1400). Excavations conducted during the Phase II testing were limited to the top two meters of deposits, focusing primarily on the Late Archaic and Woodland period occupation of the site. The depth of testing was limited because OSHA requirements would have resulted in a much larger excavation to reach lower deposits. Testing of the lower deposits would result in an excavation on the scale of Phase III data recovery.

AAC collected geo-core samples throughout the project area to investigate the early deposits without adversely effect the upper archeological occupations through large-scale excavations. This method collects soil core samples to depths greater than six meters. During the testing of 40HA524, the consultants were unable to access deposits

beyond six meters due to the nature of the alluvial soils at this depth. The geomorphological testing of 40HA524 allowed archaeologists to examine the formation of the floodplain in this location and identify human occupation through the analysis of micro-artifacts and core sample botanical remains.

AAC encountered eight prehistoric cultural components that included the Archaic, Woodland and Mississippian periods. Further investigations were recommended due to the likelihood that additional significant features would be discovered at the site: given the results from the Phase I and II projects, the archaeological record would likely yield further information on the prehistory of the Tennessee River Valley. Therefore TVA proposed mitigation of 40HA524 was needed, with special attention for the Early Archaic component that was not fully investigated in the initial projects.

### **Research Design**

During Phase II testing, Archaic fills and artifacts were located, but the depth of deposits and constraints from OSHA regulations restricted the scope of the testing. Phase III excavations will specifically target Archaic period fills located at a depth of 4 to 5 meters below surface.

The Archaic components at the site are believed to be located on a T1 terrace that was formed by the accumulation of sediments during the transition of the Pleistocene to the Holocene periods. This also marks a shift between Late PaleoIndian and Early Archaic adaptations. The Tellico Dam Little Tennessee River Valley Projects provide prime examples of Archaic occupations in east Tennessee (Chapman 1977). Because Archaic fills are believed to be located within the T1 terrace at the site, further research may provide additional evidence of Early Archaic occupations within the Tennessee River Valley.

David Anderson and Glen Hanson have provided a model for Archaic settlement organization in the Southeast. This model proposes the occurrence of band level and macro-band level settlements (Anderson 1996:29). These consist of seasonal base camps during the winter (macro-band level) and a series of short term field camps during the spring, summer and fall (band level). One question the Institute hopes to address is whether 40HA524 is a base camp, activity site or a field station. This can be accomplished by comparing our data set with that from other data sets from sites such as Icehouse Bottom, Rose Island, Calloway and Bacon Farm in the Little Tennessee River valley (Chapman 1977, 1987). These sites were all deemed to be base camp sites with Early Archaic artifact densities ranging in the hundreds per square meter (Kimball 1996:149, in Anderson 1996).

A major discussion in Tennessee archaeology today is the need to address the nature of Early Archaic social systems compared to other regional variations and to other periods, namely Late PaleoIndian and Middle Archaic (McMillan et al. 2007). Data recovery at 40HA524 may allow us to make such comparisons. Because of this, discovering the site's function is the primary research goal of this project. Specifically, the Institute will use lithic data as well as data from faunal, botanical, and geomorphology analyses to interpret the site's function as either a seasonal base camp or a field camp. Our analyses should produce information related to Early Archaic site-specific activities. Lithic analysis will not only produce temporal information (for

instance, corroborating or refining the early side notch to Kirk sequences) but also provide insight about whether this site focused on lithic production or was used primarily for hunting. Faunal and ethnobotanical analyses are critical for generating data on diet, subsistence strategies, and seasonality (for instance, the use of hickory versus acorn; McMillan et al. 2008:32). Geomorphology will not only aid in interpreting the depositional sequencing of this site, but will also provide a geographic explanation of the site's morphology during the Early Archaic period. In discerning the site's function, future researchers will be able to use this data to clarify the understanding of Early Archaic environments and adaptive strategies in the Tennessee River Valley and in the Midsouth (McMillan et al. 2007:50).

### **Methodology**

The methodology presented below is based on specifications in the Scope of Work presented by TVA and the Tennessee Historical Commission. Any deviation from the Scope of Work will be submitted to TVA for approval. The approach taken by the Institute will be to closely monitor the mechanical stripping of an approximately 100 meter-long trench to a depth of approximately four meters in order to intersect the T1 surface at the site. This unit will be parallel to the Tennessee River. Additional trenching and excavation within the initial first trench is expected to generate data associated with Archaic cultural horizons at 40HA524.

The complexity of excavating and analyzing deep Archaic deposits at this site demands confident players. Specialized analyses of faunal/botanical remains and geomorphological samples will be undertaken at the Archaeological Research Laboratory (ARL), University of Tennessee-Knoxville, under the supervision of Dr. Kandace D. Hollenbach, and Dr. Sarah C. Sherwood, respectively. The ARL has direct, first-hand experience with the site from previous involvement through work on the Phase II project.

A crucial component for the fieldwork phase is to identify a competent earth-moving firm that is capable of responding to both the large scale of the project as well as the sometimes delicate nuisances of archaeology. The Stein Construction Company has worked with the PI on several archaeological projects in the past and has demonstrated sensitivity to the exigencies of archaeological research. This licensed and insured subcontractor possesses the experience, heavy equipment, and (most importantly) skilled operators who are familiar with coordinating mechanical stripping procedures with the special demands of archaeological monitoring. In addition, this firm has already worked out the safety and environmental logistics of the site in order to meet OSHA standards. This includes erosion screens, safety fencing, backfilling and the important terracing back of the of the trench walls for safety.

### *Monitoring*

Tentatively, data recovery is set to begin the second week of June 2008 and will last approximately 14 weeks. The first stage will be to closely monitor mechanical stripping of deposits that lie over the targeted T1 terrace.

Using a trackhoe provided and operated by Stein Construction Company, the area will be stripped to the extent necessary to meet OSHA standards to create a roughly 6

meter to 100 meter working surface about 4 meters deep. Historic fills located above undisturbed strata may be removed in bulk to expedite the excavation process. Special attention will be paid to undisturbed horizons that have not been impacted by modern earth-moving activities associated with the former restaurant. Any unique features (or those resembling burials) will be examined and investigated further. Unique features include, but are not limited to, postholes present in a pattern that might indicate a structure of some type, evidence of buried surfaces that might indicate such features as house floors, etc., oblong or other similar size features that might be indicative of a human burial, or any other unique features that could provide significant information on the Woodland or Mississippian occupations in this region.

Initially two archaeologists will monitor the historic fill removal in the initial trench. Once historic fills are removed, up to three archaeologists may be involved in the monitoring. The archaeologists will examine, photograph, map, bisect, profile and sample any features identified while the third continues monitoring when we reach prehistoric levels. A minimum 4-liter sample (or available volume, if less) will be taken from the fill of each feature for flotation/fine screening with the remaining feature fill being screened through ¼ inch mesh screen. This five-liter minimum is recommended by ARL for effective identification of archaeological materials derived from float/fine screen samples in this region. Artifacts recovered in this process will be bagged and labeled by approximate provenience. Should any burials be indentified in these deposits all work shall cease immediately and the Tennessee State Archaeologist and TVA's Cultural Resources staff will be notified. Work within 25 feet of a burial shall not proceed until appropriate consultation has taken place by TVA. Monitoring is expected take up much of the first month of fieldwork.

### *Field Excavation*

Intensive Phase III data recovery begins once monitoring is completed and after all features are examined on the trench working floor. Three 30 meter by 2 meter secondary trenches will be placed within this base of surface excavation to a depth of 2-3 meters below the primary trench surface (or to a depth possible given the existing water table and OSHA safety standards).

The Institute shall excavate twelve (12) to eighteen (18) 1 m by 2 m test units adjacent to these trenches. Locations of each trench and test unit will be mapped using a total station that is tied to GPS coordinates. Excavations will be conducted in 10 cm arbitrary levels within the natural stratigraphy. All deposits will be screened with ¼ inch mesh screen. All artifacts recovered will be bagged and labeled by provenience. In addition, four liter soil samples for both faunal and floral analysis will be obtained from a control block established in selected excavation units. These samples will be taken from each ten centimeter level. The Institute will excavate all cultural features encountered using standard control techniques. Each feature will be mapped, photographed, bisected, profiled, and sampled. A minimum five-liter sample (or available volume, if less) will be taken from the fill of each feature for flotation/fine screening with the remaining feature fill being screened through ¼ inch mesh screen. If merited by a significant number of features, lack of notable ethnobotanical material or other extenuating circumstances, a sampling scheme for analysis will be determined by the archaeologists that would be



subject to approval by both TVA and the SHPO. Should any burials be indentified in these deposits all work shall cease immediately and the Tennessee State Archaeologist and TVA's Cultural Resources staff will be notified. Work within 25 feet of a burial shall not proceed until appropriate consultation has taken place by TVA.

The Institute proposes to excavate one trench at time in order to limit the amount of possible standing water in the working area. In order to finish field work by the end of September, a minimum of an 8 person crew is needed with the option of adding 2 archaeological field technicians. This number includes two project supervisors and one crew chief who is also a prehistoric specialist. The PI will also participate in the field work as needed. Starting in July, each trench with associated 1m by 2m test units (a minimum of four each) shall be completed in intervals. When fieldwork is concluded, tentatively at the end of September, Stein Construction Company will backfill the site.

An ARL Geoarchaeologist will periodically work alongside the UTC archaeologists in the field. As defined in the proposal set fourth by the ARL, the Geoarchaeologist will perform three main services. First, the Geoarchaeologist will document the site by pedestrian survey which includes field observation and digital photographs. Second, description and documentation of the trench profiles will be taken to correlate soil horizons with the archaeological strata. The third service will be to consult with the field director during fieldwork on observations, descriptions, and recommendations. ARL will submit a management summary to the Institute within one week of completion of the fieldwork. Within a maximum of four weeks from the submission of the summary, a full draft report will be submitted to the Institute. The technical report of the geoarchaeological evaluations will incorporate the initial goals of the project, methods, profile descriptions and discussion of the results. ARL will provide other relevant maps, figures and photographs in the report.

A management summary will be submitted to TVA within a month after completion of fieldwork, tentatively the end of October 2008. A full draft report shall be completed after four months of analysis. A completed report will be submitted by the month of May 2009, depending on TVA's comments. The Institute will generate a detailed topographic map of the site following completion of the excavations, including the natural features of the surrounding landscape, the placement of the excavations (mechanical and hand), and the location of all features (cultural and natural) encountered during the excavations within the site.

- Fieldwork - *June ~ September*
- Management Summary - *Completed End of October*
- Lab/Report - *Draft Report Completed End of February*
- Final Report - *Completed May 2009*

### *Laboratory Analysis*

Laboratory analysis will follow the Phase III fieldwork with appropriate procedures implemented. All data including artifacts, soil samples (i.e. soil, radiocarbon, etc.) and documentation (i.e. field records, maps, photographs, etc.) recovered will be

processed. Lab analysis at the Institute will follow standard procedures of washing, sorting artifact by class and quantifying all material by either count and/or weight. Special analysis, such as radiocarbon dating, fauna/flora analysis and geomorphological analysis will be conducted as warranted by the nature of the recovered material.

Laboratory analysis following field excavations will require full-time lab technicians and a lab supervisor. Lab analysis should take four to five months to complete, with two weeks for the curation of materials. Any archaeological materials recovered, except human remains and associated funerary objects, are the property of the private developer. This material will be returned and placed in the sponsor's care upon completion of the laboratory analysis and final report or may be placed within the curation facilities at the University of Tennessee of Chattanooga under a separate curation contract. Curation will be provided by the Institute. Since the volume of curated materials is impossible to predict, a total of 8 cubic feet of curated material is being budgeted. Anything over that amount will be charged at the rate specified in the proposed budget. ARL will conduct the paleoethnobotanical analysis of at least 30 column samples collected during fieldwork. Analysis includes involvement of at least two professional paleoethnobotanists and a lab technician. ARL will conduct floatation analysis of the sampled material. ARL will also provide the analysis and report on faunal remains found during the fieldwork. The Institute will consult closely with the ARL personnel concerning the submission of selected samples for up to eight radiocarbon dates by Beta Analytical, Inc.

### *Report Writing*

A report generated from the investigation will provide details on field and laboratory methodology as well as an overview of previous research at the site. The report will incorporate the research design, a discussion of field methodology and any modifications (prior to TVA approval) to the research design resulting from experience in the field, descriptions and location of all area investigated, and provide appropriate reporting of all cultural materials and specialized studies generated by the project. The final report will conform to professional standards and the Tennessee Division of Archaeology guidelines.

The JLB Archaeology Institute shall submit 20 copies of a draft report with a digital copy (PDF format) on CD to TVA Cultural resources for review of findings and recommendations. TVA will review the report and submit its findings and recommendations to the SHPO and culturally affiliated Native American Tribes. After receiving the review comments, the Institute will produce a final report that incorporates the changes requested by TVA Cultural Resources. Digital copies of the final report, in PDF format, will be submitted to TVA and the sponsor.

### *Personal Qualifications*

Dr. Nick Honerkamp serves as the Principal Investigator and Director of the Jeffery L. Brown Institute of Archaeology at the University of Tennessee at Chattanooga. Dr. Honerkamp assumed his post in December 1980 following the award of his Doctorate in Anthropology from the University of Florida. Honerkamp's areas of expertise include historical and prehistoric archaeology. He has directed over 40 research projects in Tennessee, including several projects in the Tennessee River Valley.

Krista Jordan-Greene serves as a project supervisor for the JLB Institute of Archaeology. She has over 9 years of archaeological fieldwork experience in prehistoric and historic sites in Indiana, Florida, Utah and Belize. She received her M.A. from the University of West Florida in anthropology in 2007.

Jim Greene serves as a project / lab supervisor for the JLB Institute of Archeology. He graduated from the University of Tennessee at Chattanooga in Anthropology and is receiving his masters from the University of West Florida in Historical Archaeology. He has served as a project supervisor and crew chief on a several historic and prehistoric sites in Tennessee and Florida.

Chris Mickwee will serve as the crew chief on this project. He has participated in excavations and research in Belize for the Maya Research Program and has excavated throughout the southeastern United States, working with various universities and CRM entities. Chris has worked extensively with the UWF Archaeology Institute in all phases of archaeological research for over 6 years. His research interests include the dynamics of Late Woodland culture change, the archaeological signatures of mobility and economic practices, and the patterns of cultural influence between major river valleys and peripheral regions. He is receiving his M.A in Anthropology from the University of West Florida in 2008 with an emphasis in prehistoric archaeology.

### **WORKS CITED**

Alexander, Lawrence S.

2006 *Phase I Archaeological Survey of a Proposed 2.5 Acre Development Parcel at Tennessee River Mile 464.5R in Chattanooga, Hamilton County, Tennessee*. Alexander Archaeological Consultants, Inc., Wildwood, GA. Prepared under contact with MAP Engineers, Chattanooga, Tennessee and The Tennessee Valley Authority Office of Natural Resources, Knoxville, Tennessee.

Anderson, David G. and Kenneth Sassaman ed.

1996 *The Paleo-Indian and Early Archaic Southeast*. Tuscaloosa: The University of Alabama Press.

Chapman, Jefferson

1977 *Archaic Period Research in the Lower Little Tennessee River Valley – 1975*

*Icehouse Bottom, Harrison Branch, Thirty Acre Island and Calloway Island.*  
Submitted in accordance with National Park Service Contracts,  
Published by the Tennessee Valley Authority.

1978 *The Bacon Farm Site and a Buried Site Reconnaissance.* Report of  
Investigations 23. Knoxville: Department of Anthropology, University  
of Tennessee.

1987 *Tellico Archaeology, 12,000 Years of Native American History.* Knoxville:  
The University of Tennessee, Published by the Tennessee Valley  
Authority.

McMillan, Katherine, D. Shane Miller, Juliette Vogel and Jonathan D. Baker  
2008 *Hunter-Gatherers in Transition: Late PaleoIndian and Early Archaic  
Adaptations in Tennessee, In Tennessee Archaeology: A Synthesis.*  
Knoxville: University of Tennessee, Unpublished work:  
<http://web.utk.edu/~anthrop/research/TennesseeArchaeology/index.html>

Wolke, Dale and Lawrence S. Alexander.

2006 *Phase II Archaeological Survey of a Proposed 2.5 Acre Development  
Parcel at Tennessee River Mile 464.5R in Chattanooga, Hamilton County,  
Tennessee.* Alexander Archaeological Consultants, Inc., Wildwood, GA.  
Prepared under contact with MAP Engineers, Chattanooga, Tennessee and  
The Tennessee Valley Authority Office of Natural Resources, Knoxville,  
Tennessee.

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**Defoors Downtown Condos [800.11(e) Documentation]**

**As of December 15, 2006**

Nickajack Reservoir ~ Hamilton County

**Description of the Undertaking**

TVA received a 26a permit request from Defoor Brothers Development for a the placement of fill on a 2.5 acre tract along the Tennessee River (RM 464.5R) on Nickajack Reservoir in Hamilton County, Tennessee for the purpose of constructing a residential facility. Plans for the residential structure include the placement of approximately 3800 cubic yards of fill, excavation of an underground parking facility, and construction of a six-story condo building. Additional surface parking is to be located on the north side of the building. It is our understanding that the construction would require placement of deep pilings as foundation footers. During review of the proposed plans, it was determined that this undertaking had the potential to affect historic properties that may be present. The area of potential effects was determined to be all areas to be included in the proposed fill/construction (approximately 2.5 acres). Additional information regarding the site, site photographs, maps, and drawings are available in the Phase II Testing report (Wolke and Alexander 2006).

**Description of the Steps Taken to Identify Historic Properties**

Results of a desktop review indicated that the project area had not been previously surveyed. Archaeological sites have been previously recorded all along the river adjacent to this tract and it was known that the project area had a high potential for archaeological sites to be present given its location on an alluvial terrace adjacent to the Tennessee River. Previous archaeological investigations have shown us these types of locations are prime settings for aboriginal occupations. Project management notified CR staff that the area had been previously disturbed from the presence of a restaurant and other facilities. These facilities had all been demolished and the property consisted of a grassy lawn with adjacent parking. A field review was conducted by TVA Cultural Resources staff to determine the extent of disturbance in this area. Based on this review, it was clear that while the site had been impacted, the potential for deeply buried deposits was likely in this location. CR Staff requested the applicant provide TVA with the results of soil borings taken by the developer. These soil borings confirmed the presence of intact alluvial deposits to depths as great as 40 feet. Disturbance was limited to one to eight feet in depth. CR requested a phase I survey from the applicant. This survey was completed in December 2005. Results indicated the potential for intact archaeological deposits to be present beneath the disturbed areas. The applicant's archaeological consultant recommended Phase II testing if the site could not be avoided.

The developer determined that the site could not be avoided. TVA requested Phase II testing of the site and received a report in October 2006. Results of the archaeological testing indicate the site may have been occupied as early as the Early Archaic period (approximately 8000 B.C.). Occupation of the site continued through the Woodland period (1000 B.C. to A.D. 1000) and into the Mississippian period(A.D. 1000-1400). Excavations conducted during the Phase II testing were limited to the top 2 meters of deposits, focusing primarily on the Late Archaic and Woodland period occupation of the site. The depth of testing was limited because OSHA requirements would have resulted in a much larger excavation to reach the lower deposits. Testing of the lower deposits would result in an excavation on the scale of Phase III data recovery.

To investigate the early deposits without conducting major excavations that could adversely effect the upper archaeological occupations, the consultant subcontracted with the University of Tennessee to conduct geomorphological testing through the excavation of geo-core samples across the property. This method collects soil core samples to depths greater than 6 meters. During the testing of 40HA524, the consultants were unable to access deposits beyond 6 meters due to the nature of the alluvial soils at this depth. The geomorphological testing of 40HA524 allowed archaeologists to examine the formation of the floodplain in this location and identify human occupation through the analysis of microartifacts. Artifacts and botanical remains are collected from the core samples and processed and examined through a microscope. Archaeologists are able to estimate the density of archaeological deposits that may be present at these levels.

#### *Timeline*

- A phase I archaeological survey was conducted on the property in December 2005. (The purpose of phase I survey is to identify properties [archaeological sites, buildings, etc] that may be eligible for listing in the NRHP.)
- Phase I survey identified site 40HA524 within the project area. At this time, the site investigations were limited to the top 2 meters of deposits. The site was determined to be potentially eligible for listing in the National Register of Historic Places (NRHP)
- The developer chose to proceed with Phase II testing of the site - stating that it could not be avoided by construction activity. Phase II testing was conducted in June 2006. (The purpose of Phase II testing is to evaluate a property for eligibility for listing in the NRHP.)
- Phase II report was submitted to TVA in October 2006. Results indicate the archaeological site is a deeply stratified, multi-component site dating from Early Archaic period through the Mississippian period. Archaeological deposits reach a depth of 4-6 meters and likely extend deeper (deeper deposits could not be reached by coring). The site contains relatively well-preserved botanical remains (plant/charcoal remains) that date to the Early Archaic period. Very little is known about the Early Archaic in this region.
- TVA has reviewed the Phase II report and finds that the site meets the criteria of eligibility for listing in the NRHP.
- TVA submitted these findings to the State Historic Preservation Officer (SHPO) in a letter dated November 14, 2006. Our determination is that the project, as currently proposed, would adversely affect site 40HA524.
- The SHPO has concurred with this finding in a letter dated November 20, 2006.

#### **Eligibility of 40HA524**

Carbon samples collected from the geo-cores at 40HA524 were used to radiocarbon date the occupation of the site to at least 4350 B.C. Preserved botanical remains were identified at this depth indicating the potential for archaeological features that could provide archaeologists with information about subsistence practices and the seasonality of use of the site by these early inhabitants. Because very few Archaic sites have been investigated in this region, there are significant gaps in the archaeological data regarding this early occupation. Excavation of this site would contribute to our understanding of

Archaic peoples and could provide information to help archaeologists define this cultural period.

Phase II archaeological testing of 40HA524 focused on the Late Archaic and Woodland period occupations. Archaeological features that were identified include hearths and pit features. Specific activities that are believed to have occurred at the site include nut and other foodstuff processing, cooking, food storage, and tool manufacturing, all suggesting that the site was used for long-term habitation. Based on the types of plant materials present at the site, it is believed that the site was primarily occupied in the late spring through early fall. The Woodland period represents a period in time when prehistoric Native Americans began domesticating indigenous wild plants and 40HA524 shows evidence of the use of such plants. The Woodland period is also significant for its involvement in regional trade of exotic materials and use of burial mounds to inter the dead. Evidence of this activity does not appear to be present and the relationship of this type of site to the more elaborate Woodland period sites on nearby Moccasin Bend could be examined with further excavation.

Research questions that can be addressed from 40HA524 are detailed in a "Statement of Significance" provided by Alexander Archaeological Consultants, Inc. (Appendix A). This document was provided to TVA on request as this information was vital to making a determination of eligibility for the site. Based on the information provided thus far by Phase II testing and the potential for the site's potential to provide additional information, TVA has determined the site meets the criteria of eligibility for listing in the National Register of Historic Places (NRHP) under Criterion D. The requirements for Criterion D include:

- The property must have, or have had, information to contribute to our understanding of human history or prehistory, and
- The information must be considered important.

This argument has been made because the site has the ability to provide answers to the research questions outlined in Appendix A. In addition, the site contains intact Archaic deposits that will provide information about a period where gaps exist in the current body of knowledge.

#### **Determination of Adverse Effect**

Adverse effect determinations are summarized in 36CFR part 800.5(a)(1-2):

*An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association.*

*Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation for the National Register. Adverse effects may include reasonably foreseeable effects cause by the undertaking that may occur later in time, be farther removed in distance or be cumulative.*

*(2) Examples of adverse effects.*

*Adverse effects on historic properties include, but are not limited to:*

*(i) Physical destruction of or damage to all or part of the property;*

- (ii) Alteration of the property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the treatment of historic properties (36CFR part 68) and applicable guidelines;*
- (iii) Removal of the property from its historic location;*
- (iv) Change in character of the property's use or of physical features within the property's setting that contribute to its historic significance;*
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features*
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and*
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without restrictions or conditions to ensure long-term preservation of the property's historic significance.*

An adverse effect occurs when a characteristic of a historic property that qualifies it for eligibility is diminished.

40HA524 is eligible for the NRHP under Criterion D (i.e. it is likely to yield important information that will contribute to our understanding of human prehistoric) (National Register Bulletin #15). Once a building or so much fill is placed on top of the site that it is impracticable to access the site, it can no longer yield important information; therefore it has affected the characteristic that qualified it for eligibility.

In addition, placement of such a large facility on top of alluvial sediments would result in some level of soil compaction. This compaction could adversely affect intact archaeological deposits resulting in physical destruction of the site.

#### **Documentation of Consulting Party Viewpoints**

TVA has submitted findings to the Federally recognized Indian tribes. These letters were sent on December 7, 2006. No comments have been received to date.



**APPENDIX A**  
**Statement of Site Significance**  
Provided by  
Alexander Archaeological Consultants, Inc.

## 40HA524 Site Significance

### *The Archaic Period*

The significance of Site 40HA524 lies in its unique potential to reveal clues pertaining to prehistoric cultural adaptations in the Tennessee River valley. This is particularly true for the Archaic period (8000 - 700 BC), during which prehistoric occupations were seasonal and the remains left behind in the archaeological record by these small bands of foragers are fugitive in nature. Prior to the construction of the Tellico Dam, a number of Archaic sites were investigated along the Little Tennessee River including Rose Island (40MR44; Chapman 1975), Bacon Bend (Site 40MR25; Chapman 1981), and the Patrick Site (Site 40MR40; Schroedl 1978).

Within the immediate vicinity of Site 40HA524, the corpus of archaeologically known and investigated sites is much smaller. Council (1989) describes the discovery of two hearths at Site 40HA102, dating to the Late Archaic period. This site lies a few kilometers upstream in a similar geomorphological setting to 40HA524, but the remainder of the Archaic occupation went unexcavated and has now been buried by subsequent construction. Evidence of another Archaic occupation was uncovered at Site 40HA210, .5 km upstream from Site 40HA524 (Honerkamp 1984). Again, full exploration of the site was beyond the purview of the contract and the prehistoric occupations have either been destroyed or are now inaccessible.

Downstream of Site 40HA524, at Coolidge Park, a Middle Archaic occupation was discovered at Site 40HA447 and another at the nearby Site 40HA446 which spans the Early through Late Archaic periods (Alexander et al. 2000). Both sites have been adversely impacted by the construction of the John Ross Bridge as well as later park construction, and neither revealed significant information concerning Archaic lifeways.

Of greater importance to our understanding of Archaic period occupations in the Chattanooga vicinity, comes from excavations on Moccasin Bend. There, McCollough and Bass (1983) discovered the only known architectural remains in the area. They excavated a Late Archaic semi-subterranean structure and the associated features and postholes at Site 40HA140. One of the features hinted at a complex network of trade existing at the time, linking Chattanooga with the source of high quality Dover chert to the west of Nashville, as well with central eastern Alabama where outcrops of greenstone were utilized in prehistoric times. Fragments of steatite vessels were also recovered, indicating ties with a swath of Appalachian piedmont stretching from western Georgia northeastward to North Carolina.

While the sites above have provided glimpses of Archaic period life in the Tennessee River valley, fundamental gaps in our understanding of the Archaic inhabitants of the region remain. The occupations along the river levee appear to have been specialized activity sites, complementing other seasonal camps in the uplands (Chapman 1975; Walling et al. 2000), which, with their large storage pits and extensive middens, were occupied for other purposes. To date, there is insufficient data to determine what brought the Archaic peoples to the river. We would expect to find netsinkers, carved stones used to weigh down fish nets within the water, similar to those recorded by Chapman along the Little Tennessee River (1975). Further excavation, especially the recovery of faunal and floral remains, will allow us to address the question of site function.

Evidence of trade from Moccasin Bend raises the possibility that Chattanooga served as the hub of a widespread trade network in the Archaic period. In terms of steatite, greenstone, and high quality Dover chert, Chattanooga was centrally located and further investigation of Site 40HA524 will allow us to test the area's role in Archaic exchange.

### *The Woodland Period*

The succeeding Woodland period in southeastern archaeology dates from 700 BC to ca. AD 1000. In upper East Tennessee and the Southern Appalachian Highlands, the Early Woodland Swannanoa phase is characterized by distinctive, well made, grit tempered ceramics (Lafferty 1981). Ceramics of this phase appear to have been rather crudely imitated by indigenous Late Archaic groups between Knoxville and the mouth of the Hiwassee River. The resulting Watts Bar ceramic series was short lived and, to date, has not been recovered as far south as the Chattanooga area. Rather, local terminal Archaic/Early Woodland populations appear to have directly adopted the later limestone tempered Long Branch ceramics without the transitional sand/quartzite tempered ceramics seen further to the northeast.

Local adoption of ceramics took place at least 100 years after similar developments in northeast Tennessee, raising the question "why?" Was the Chattanooga area a cultural backwater during the transitional Terminal Archaic/Early Woodland period? Or, had the people living here so successfully adapted to the environment that there was no need to adopt pottery?

A second research question for the Woodland period comes from an increasingly widespread network of trade partners, known archaeologically as the Hopewellian Interaction Sphere. Locally, this interaction has manifested itself in a complex mortuary system including burial mounds such as those excavated downstream on Moccasin Bend (McCollough and Bass 1983; Moore 1915) and in northwestern Georgia at the Tunachunnhee site (Jefferies 1976). Associated with the burials in the mounds are exotic artifacts such as copper pan pipes, mica, copper ear spools and gorgets, as well as sharks teeth.

While the artifacts from the Moccasin Bend mounds are not as exotic, there remains the fact that there are burial mounds at all. Why were they constructed on Moccasin Bend during the Middle/Late Woodland and not upstream in association with the contemporaneous 40HA524? Were these two sites occupied by people with different belief systems, or was Moccasin Bend especially sacred?

A final research question involving the Woodland period occupation of Site 40HA524 deals with changes in subsistence adaptations. The transition from Archaic to Woodland has traditionally been marked by 1) technological innovations in pottery and 2) increased cultivation and domestication of plants. The Tennessee River valley has provided some of the earliest dates of domesticated plants in the Southeast. *Chenopodium*, a productive seed-bearing plant which thrived in the disturbed soils surround prehistoric sites, has been dated to ca. 2000 BP at Russell Cave in extreme northeastern Alabama (Smith 1984), and maize, dating to A.D. 175, was recovered from the Icehouse Bottom site (Chapman and Crites 1987).

Phase II investigations indicate that the inhabitants of Site 40HA524 were exploiting naturally occurring mast, particularly hickory nuts and walnuts. A nutting stone dating either to the Late Archaic or the Early Woodland period was discovered in Test Unit 12. Clues of early cultigens were also discovered, notably two maygrass seeds from a Woodland context in Test Unit 11. Further investigation of the site, with a focus on recovering paleobotanical remains, will shed light on the increasing reliance placed on cultivars such as maygrass, but also hawthorn, and marsh elder. Such a focus may also help substantiate claims that the prehistoric occupants of the Middle Tennessee River valley were quick to adopt domesticated varieties such as maize,

chenopodium, and sunflowers, particularly as populations grew in the Woodland period and traditional gathering and hunting adaptations were stressed.

Opposite Site 40HA524, on Maclellan Island, Honerkamp (1998) reports a Woodland period shell midden. Very little shell was recovered from excavations at Site 40HA524, suggesting the possibility that its inhabitants were exploiting Maclellan Island for its mussels and perhaps their preliminary processing.

#### *The Mississippian Period*

While the Mississippian farmstead located at Site 40HA524 would have been damaged by historic plowing, there remains the potential to discover intact sub-plow zone deposits such as features, post molds, and burials. This is likely the case due to the fill that was brought to the site prior to the construction of Fehn's restaurant which helped minimize the impact below the surface.

One of the potential areas of interest for Site 40HA524 would be the ability to compare mortuary patterns with those from larger and better documented mounded Mississippian sites. The religious and craft specialists who occupied the latter were supported by the agricultural output of smaller satellite villages and hamlets such as 40HA524, 40HA210 to the immediate east (Council and Honerkamp 1990), and 40HA102 on the south shore of the river (Council 1989). Currently, our understanding of Mississippian society is biased towards the mounded sites, mainly because they have long been known to house elite interments accompanied by the exotic grave goods sought by looters.

Investigation of a non-mounded Mississippian hamlet like Site 40HA524 will also allow testing of Council's (1989) hypothesis regarding gender inequality in Mississippian society. Based upon a disproportionate number of female burials at Site 40HA102, Council argues that the men of the village had higher social status than the women and were therefore buried elsewhere, presumably at mounded regional centers such as Citico.

By far, the greatest importance of Site 40HA524 lies in its access to a deeply stratified archaeological site which has demonstrated occupation beginning in the Early Archaic and continuing through the Mississippian period. Phase III Data Recovery from such a site is virtually unknown along the Tennessee River in Southeastern Tennessee. The lower component of the site is well documented with radiocarbon dates from deep cores undertaken by Archaeological Research Laboratories. In the principal area of the site, the early component dates to approximately 6200 cal BP. Undisturbed contexts such as this represent an invaluable opportunity for archaeologists.

## References Cited

Alexander, L. S., D. J. Minnich, H. R. Campbell, and W. D. Stevens

2000 *Archaeological Investigations at Coolidge Park, Chattanooga, Hamilton County, Tennessee*. Report prepared by Alexander Archaeological Consultants for RiverValley Partners, Chattanooga, TN.

Chapman, J.

1975 *The Rose Island Site*. University of Tennessee, Department of Anthropology.

1981 *The Bacon Bend and Iddins Sites*. University of Tennessee, Department of Anthropology, Report of Investigations No. 31. The Tennessee Valley Authority Publications in Anthropology No. 25.

Chapman, J. and G. D. Crites

1987 Evidence for Early Maize (*Zea Mays*) from the Icehouse Bottom Site, Tennessee. *American Antiquity* 52:352-354.

Council, R. B.

1989 *The Tennessee Riverpark Excavations: Archaeological Testing at Sites 40HA102 and 40HA233; Chattanooga, Hamilton County, Tennessee*. Report prepared by the Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga for the RiverCity Company, Inc., Chattanooga, TN.

Council, R. Bruce, and Nicholas Honerkamp

1990 *Limited Excavation of a Mississippian Housesite at the Heritage Place Site, 40HA210, Chattanooga, Hamilton County, Tennessee*. Research Contributions No. 4, Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga.

Honerkamp, N.

1984 *On the River's Edge: Prehistoric Occupations on the Heritage Place Tract, Chattanooga, Tennessee*. Jeffrey L. Brown Institute of Archaeology, University of Tennessee at Chattanooga.

1998 *Testing a Woodland Component on Maclellan Island, Chattanooga, Tennessee*. Tenth Annual Meeting on Current Research in Tennessee Archaeology, Nashville

Jeffries, R. W.

1976 *The Tunacunnhee Site: Evidence of Hopewell Interaction in Northwest Georgia*. Anthropological Papers of the University of Georgia No. 1, Athens, GA.

Lafferty, R.H.

1981 *The Phipps Bend Archaeological Project*. University of Alabama, Office of Archaeological Research, Report of Investigations No. 4. Moundville, Alabama.

McCullough, M. C. R. and Q. R. Bass II

1983 *Moccasin Bend, the Pride of Chattanooga*. Report prepared by the Chattanooga Regional Anthropological Association.

Moore, C. B.

1915 Aboriginal Sites on the Tennessee River. *Journal of the Academy of Natural Sciences of Philadelphia* 16:169-428. Reprinted 2002 by The University of Alabama Press, Tuscaloosa, AL.

Schroedl, G. F.

1978 *The Patrick Site, Tellico Reservoir*. University of Tennessee, Department of Anthropology, Report of Investigations No. 25.

Smith, B.

1984 *Chenopodium* as a Prehistoric Domesticated in Eastern North America: Evidence from Russell Cave, Alabama. *Science* 226:165-167.

Walling, R., L. Alexander, and E. Peacock

2000 *The Jefferson Street Bridge Project, Vol. I*. Report prepared by Panamerican Consultants, Inc. for the Tennessee Department of Transportation, Nashville, TN.



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499

June 5, 2008

Mr. Don Klima  
Director, Office of Federal Agency Programs  
Advisory Council on Historic Preservation  
1100 Pennsylvania Ave., NW, Suite 803  
Washington, DC 20004

Dear Mr. Klima:

**TVA, MEMORANDUM OF AGREEMENT AND SCOPE OF WORK FOR DATA  
RECOVERY OF 40HA524, DEFOORS CONDOS, PROPOSED 26A PERMIT,  
HAMILTON COUNTY, TENNESSEE**

The Tennessee Valley Authority (TVA) is reviewing a 26a permit request from Defoor Brothers Development (Developer) for a the placement of fill on a 2.5-acre tract on Nickajack Reservoir in Hamilton County, Tennessee (Tennessee River Mile 464.5R). The Developer intends to construct a residential structure.

TVA determined, in consultation with the Tennessee State Historic Preservation Officer (TN SHPO) and federally recognized Indian tribes, that site 40HA524 meets the criteria of eligibility for listing in the National Register of Historic Places. In addition, it was determined that the project, as proposed, would adversely affect this historic property. TVA worked with the Developer to find alternatives to the site plan that would avoid or minimize adverse effects to the site. (See enclosed alternatives.) After careful consideration of these options, the Developer has determined that the site cannot be avoided and has decided to proceed with the project as previously planned.

Pursuant to 36 CFR Part 800.6 of the Advisory Council on Historic Preservation's (Council) regulations, TVA is notifying the Council of the adverse effect findings for the proposed project. Documentation pursuant to 36 CFR 800 Part 800.11(e) is enclosed for your review. TVA has consulted with TN SHPO and TN SHPO agrees that a Memorandum of Agreement (MOA) will address and resolve adverse effects to historic properties located within the area of potential effect. Pursuant to 36 CFR Part 800.6(c), TVA proposes to enter into an MOA with the TN SHPO. The Developer will be an invited signatory to the MOA. TVA is inviting the Eastern Band of Cherokee Indians, United Keetoowah Band, Cherokee Nation of Oklahoma, Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Thlopthlocco Tribal Town, Kialegee Tribal Town, Alabama-Quassarte Tribal Town, Alabama-Coushatta Tribe, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Absentee Shawnee of Oklahoma, Seminole Indian Tribe, Seminole Nation of Oklahoma, Jena Band of Choctaw Indians, and the Choctaw Nation of Oklahoma to be concurring parties to this MOA.

Mr. Don Klima  
Page 2  
June 5, 2008

The draft MOA is enclosed. Please advise if the Council wishes to participate in the consultation to resolve the adverse effects for this project.

Should you have comments or questions, please contact Erin Pritchard at (865) 632-2463 or email at [eepritchard@tva.gov](mailto:eepritchard@tva.gov).

Sincerely,

*Original signed by Thomas O. Maher*

Thomas O. Maher, Ph.D.  
Manager  
Cultural Resources

EEP:IKS  
Enclosures

cc: Daniel C. Fisher, PSC 1E-C  
EDMS, WT 11D-K





Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499

June 9, 2008

(Name)  
Address  
Address  
Address  
Address

Dear \_\_\_\_\_:

**TVA, MEMORANDUM OF AGREEMENT AND SCOPE OF WORK FOR DATA RECOVERY OF 40HA524, DEFOORS CONDOS, PROPOSED 26A PERMIT, HAMILTON COUNTY, TENNESSEE**

The Tennessee Valley Authority (TVA) is reviewing a 26a permit request from Defoor Brothers Development (Developer) for a the placement of fill on a 2.5-acre private property tract on Nickajack Reservoir in Hamilton County, Tennessee (Tennessee River Mile 464.5R). The Developer intends to construct a condominium on the private property. I have enclosed previous correspondence regarding this project that was sent on April 4, 2006 and December 7, 2006 on the enclosed compact disc (CD).

TVA determined, in consultation with the Tennessee State Historic Preservation Officer (TN SHPO), that site 40HA524 meets the criteria of eligibility for listing in the National Register of Historic Places. In addition, TVA determined that the project, as proposed, would adversely affect this historic property. TVA worked with the Developer to find alternatives to the site plan that would avoid or minimize adverse effects to the site. After careful consideration of these options, the Developer determined that the site cannot be avoided and will proceed with the project as previously planned.

Pursuant to 36 CFR Part 800.6(c), TVA proposes to enter into a Memorandum of Agreement (MOA) with the TN SHPO to mitigate the effects of this undertaking. A draft MOA is on the enclosed CD for your review. TVA is inviting the following federally recognized Indian tribes to be concurring parties to the MOA: Eastern Band of Cherokee Indians, United Keetoowah Band of Cherokee Indians in Oklahoma, Cherokee Nation, The Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Thlopthlocco Tribal Town, Kialegee Tribal Town, Alabama-Quassarte Tribal Town, Alabama-Coushatta Tribe of Texas, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Absentee Shawnee of Oklahoma, Seminole Tribe of Florida, Jena Band of Choctaw Indians, and the Choctaw Nation of Oklahoma.

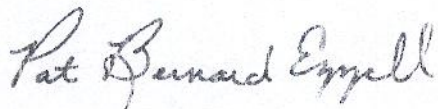
TVA has prepared a draft scope of work (SOW) for Phase III data recovery of the site. In response to this draft SOW, the Developer has submitted a proposal for the projected excavation (on the enclosed CD). Please provide any comments you may have on the proposed mitigation.

Page 2  
June 9, 2008

Pursuant to 36 CFR Part 800.6 of the Advisory Council's regulations, TVA is notifying the Council of the adverse effect findings for the proposed project. Documentation pursuant to 36 CFR 800 Part 800.11(e) is also on the enclosed CD for your review.

TVA is seeking your comments on the draft MOA and SOW to mitigate adverse effects. If you have any questions regarding this undertaking, please contact me at 865.632.6461 or by email at pbezzell@tva.gov.

Sincerely,

A handwritten signature in cursive script that reads "Pat Bernard Ezzell".

Pat Bernard Ezzell  
Historian/Native American Liaison  
Cultural Resources

EEP:IKS  
Enclosure  
cc: EDMS, WT 11D-K



**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

June 19, 2008

Dr. Thomas Maher  
Tennessee Valley Authority  
400 W. Summit Hill Drive  
WT 11D - Cultural Resources  
Knoxville, Tennessee 37902

RE: TVA, DRAFT MEMORANDUM OF AGREEMENT, DEFOOR BROTHERS CONDOS/  
TRM 464.5R, CHATTANOOGA, HAMILTON COUNTY,

Dear Dr. Maher:

At your request, our office has reviewed the above-referenced draft memorandum of agreement and associated scope of work for data recovery at site 40HA524 in accordance with regulations codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739). We have suggested a few minor editorial changes to the agreement and have forwarded these requests to you via email correspondence. We concur with the proposed strategy in the preliminary scope of work. The included Data Recovery Proposal adequately addresses the scope of work.

Questions and comments may be directed to Jennifer M. Barnett (615) 741-1588, ext. 17.

Your cooperation is appreciated.

Sincerely,

E. Patrick McIntyre, Jr.  
Executive Director and  
State Historic Preservation Officer

EPM/jmb



## *Jena Band of Choctaw Indians*

P. O. Box 14 • Jena, Louisiana 71342-0014 • Phone: 318-992-2717 • Fax: 318-992-8244

July 3, 2008

TENNESSEE VALLEY AUTHORITY  
400 WEST SUMMIT HILL DRIVE  
KNOXVILLE, TN 37902-1499

**RE: TVA, MEMORANDUM OF AGREEMENT AND SCOPE OF WORK FOR  
DATA RECOVERY OF 40HA524, DEFOORS CONDOS, PROPOSED 26A  
PERMIT, HAMILTON COUNTY, TENNESSEE.**

To Whom It May Concern:

Reference is made to your letter dated June 9, 2008, concerning the above-proposed project.

After thorough review of the documents submitted, it has been determined that there will be no significant impact in regards to the Jena Band of Choctaw Indians.

Should you have any questions, please feel free to call me.

Sincerely,

Lillie McCormick  
Environmental Director  
Jena Band of Choctaw Indians  
Ph: 318-992-8258  
Fax: 318-992-8244  
[lmccormickjbc@centurytel.net](mailto:lmccormickjbc@centurytel.net)

# Attachment 6

(7 pages)

**Parr, Kenneth P**

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**From:** Fisher, Daniel C  
**Sent:** Thursday, February 14, 2008 4:03 PM  
**To:** 'Autumn Friday'  
**Cc:** Sims, Angela B; 'Mike Price'  
**Subject:** 600 River Street - Draft Scope of Work for your review - Defoors Condo project  
**Attachments:** SOWPhaseIIIDeFoodsCondos\_RM464 5R \_2\_.pdf

Autumn:

Attached is the DRAFT Scope of Work (SOW) for Phase III data recovery at this site, which was developed based on discussion and agreements reached at our last meeting. This is the opportunity to comment on the document before we send it to the Tennessee SHPO. We are also preparing a Memorandum of Agreement (MOA) to be signed by all the parties. We hope to get the MOA to you by the end of next week. The MOA and the final SOW will need to be sent to the Tennessee SHPO and tribes. No work on the Phase III data recovery can be started until approvals are obtained.

When we receive your comments on the SOW, we will restart formal review with cost recovery for future administrative costs associated with completing the coordination, the environmental review and issuing the permit.

Dan

Daniel C. Fisher, Land Use Specialist  
TVA Environmental Stewardship & Policy  
1101 Market Street PSC 1E  
Chattanooga, TN 37402-2801  
423-876-4177 Fax: 423-876-4016

**SCOPE OF WORK**  
**PHASE III DATA RECOVERY OF SITE 40HA524,**  
**HAMILTON COUNTY, TENNESSEE**  
**PRELIMINARY DRAFT - NOT YET APPROVED BY SHPO**

**I. INTRODUCTION**

A private developer (Developer) has submitted a 26a permit request to the Tennessee Valley Authority (TVA) for the construction of a residential development on Nickajack Reservoir, Hamilton County, Tennessee. The proposed residential development encompasses approximately 1.01 hectares (2.5 acres) and includes the placement of 2905 cubic meters (3800 cubic yards) of fill to bring the minimum elevation of the first story of the development .3 meters (1 foot) above the 100 year floodplain along the north bank of the Tennessee River (RM 464.5R).

TVA established the project's Area of Potential Effect (APE), as defined at 36 CFR Part 800.16(d), to be the proposed fill area and any other ground disturbance associated with the residential development. In 2006, Alexander Archaeological Consultants, Inc., (AAC) conducted a Phase I survey of site 40HA524 consisting of the mechanical excavation of six backhoe slot trenches and the hand excavation of seven test units (50 cm by 50 cm) within the project area (Alexander, 2006, *Draft Report: Phase I Archaeological Survey of a Proposed 2.5 Acre Development Parcel at Tennessee River [RM 464,5R] in Chattanooga, Hamilton County, Tennessee*). The site was considered potentially eligible for listing in the NRHP and could not be avoided by the proposed development. The applicant opted to move forward with Phase II testing to determine the sites eligibility status.

Phase II testing of the site was conducted in the summer 2006 (Wolke and Alexander 2006). Results of the testing indicate the site may have been occupied as early as the Early Archaic period (approximately 8000 B.C.). Occupation of the site continued through the Woodland period (1000 B.C. to A.D. 1000) and into the Mississippian period (A.D. 1000-1400). Excavations conducted during the Phase II testing were limited to the top 2 meters of deposits, focusing primarily on the Late Archaic and Woodland period occupation of the site. The depth of testing was limited because OSHA requirements would have resulted in a much larger excavation to reach the lower deposits. Testing of the lower deposits would result in an excavation on the scale of Phase III data recovery.

To investigate the early deposits without conducting major excavations that could adversely effect the upper archaeological occupations, geomorphological testing through the excavation of geo-core samples was conducted across the property. This method collects soil core samples to depths greater than 6 meters. During the testing of 40HA524, the consultants were unable to access deposits beyond 6 meters due to the nature of the alluvial soils at this depth. The geomorphological testing of 40HA524 allowed archaeologists to examine the formation of the floodplain in this location and identify human occupation through the analysis of microartifacts. Artifacts and botanical remains are collected from the core samples and processed and examined through a microscope.

Carbon samples collected from the geo-cores at 40HA524 were used to radiocarbon date the occupation of the site to at least 4350 B.C. Preserved botanical remains were identified at this depth indicating the potential for archaeological features that could provide archaeologists with information about subsistence practices and the seasonality of use of the site by these early inhabitants. Because very few Archaic sites have been investigated in this region, there are significant gaps in the archaeological data regarding this early occupation. Excavation of this site

would contribute to our understanding of Archaic peoples and could provide information to help archaeologists define this cultural period. As a part of the submitted proposal, the consultant should provide an appropriate research design with questions that will relate to various aspects of the archaic period in this region. Specifically, botanical remains present within these deposits might help define archaic period subsistence in the area.

TVA determined that the site met the criteria of eligibility for the NRHP and would be adversely affected by the proposed project and the Tennessee SHPO concurred with this finding in November 2006. The proposed project calls for the excavation of pilings to be placed beneath the building foundation in order to stabilize the structure. Additional excavation for an underground garage facility will be conducted. These procedures will have a direct adverse effect on the site. In addition to these effects, the site's significance is based on its ability to provide scientific data to the archaeological community through data recovery. Loss of access to the site through placement of a permanent structure over the site (a six story residential structure is not considered "reversible") would pose an additional adverse effect. In addition, placement of such a large facility on top of alluvial sediments would result in some level of soil compaction. This compaction could adversely affect intact archaeological deposits.

TVA, in consultation with the Tennessee SHPO, is proposing an alternative data recovery strategy to mitigate 40HA524. Excavations will focus on recovery of earlier deposits that were not investigated during the Phase II testing of the site. Proposed measures are outlined in this scope of work.

## **II. DESCRIPTION OF WORK TO BE PERFORMED**

This Scope of Work (SOW) will address archaeological deposits which will be adversely affected by the proposed undertaking. All work conducted will meet the minimum requirements established by the Tennessee State Historic Preservation Officer (SHPO) Standards and Guidelines for Archaeological Resource Management Studies (1999); and will investigate the project area at a level sufficient to address proposed research questions. Prior to conducting the field work associated with this final phase of investigation, the selected archaeological contractor (Contractor) will contact TVA Cultural Resources (Erin Pritchard [865]-632-2463) to discuss timing and schedule.

**A. Archaeological Measures:** The Contractor will conduct a Phase III archaeological data recovery program, per the following criteria:

- (1) The Contractor shall mechanically strip archaeological deposits at a level sufficient to monitor for significant archaeological features that may be present. The area should be stripped to the extent necessary to meet OSHA standards for a 4-6 meter wide trench to a depth of 4 to 5 meters below the existing ground surface. Historic fill located above these deposits may be removed in bulk to expedite the excavation process. The level of historic fill are documented in the Phase II testing report. This process should continue through the upper (approximate) 2 meters of the site previously investigated during Phase II archaeological testing. Any unique features or those resembling burials would need to be examined and excavated. Unique features include, but are not limited to, postholes present in a pattern that might indicate a structure of some type, evidence of buried surfaces that might indicate such features as house floors, etc., oblong or other similar size features that might be indicative a human burial, or any other unique features that could provide new, significant information on the Woodland occupation in this

region. Any features examined will be photographed and mapped, bisected and profiled, and sampled. A minimum 2-liter sample (or the available volume, if less) will be taken from the fill of each feature for flotation/fine screening with the remaining feature fill being screened through 1/4 in mesh screen. Artifacts recovered in this process will be bagged and labeled by approximate provenience. Should any burials be identified in these deposits all work shall cease IMMEDIATELY and the Tennessee State Archaeologist and TVA's Cultural Resources staff notified right away. Work within 25 feet of a burial shall not proceed until appropriate consultation has taken place by TVA.

(2) Once the contractor has removed archaeological deposits representing those occupations examined in the Phase II testing, actual Phase III data recovery will commence. A surface area should be cleared to include an approximate 20 meter by 100 meter surface (see attached sketch). This will become the base of excavation. Three 30m by 2m trenches should be placed across this surface to a depth of 2-3m below the surface (or to a depth possible given the existing water table and Occupational Safety and Health Administration (OSHA) safety standards. The contractor shall excavate twelve (12) to eighteen (18) 1 m by 2 m test units adjacent to these trenches. Locations of each trench and test unit should be documented with GPS coordinates on a map. Excavations will be conducted in 10 cm arbitrary levels within the natural stratigraphy. All deposits will be screened through 1/4 in mesh screen. Artifacts recovered in the screen will be bagged and labeled by provenience. In addition, 1-liter soil samples for both faunal and floral analysis will be obtained from a control block established in selected excavation units (no less than 1 excavation unit) and will be taken from each 10 cm level cut in established sampling columns. The Contractor shall excavate all cultural features encountered using standard control techniques. Each feature will be photographed and mapped, bisected and profiled, and sampled. A minimum 2-liter sample (or the available volume, if less) will be taken from the fill of each feature for flotation/fine screening with the remaining feature fill being screened through 1/4 in mesh screen. If merited by an exceptional number of features, lack of notable ethnobotanical material, or other extenuating circumstances, a sampling scheme for the analysis will be determined in consultation with and subject to approval by both TVA and the SHPO. Should any burials be identified in these deposits all work shall cease IMMEDIATELY and the Tennessee State Archaeologist and TVA's Cultural Resources staff notified right away. Work shall not proceed until appropriate consultation has taken place by TVA.

(3) A qualified geoarchaeologist trained in geomorphology (to be reviewed by TVA) should assess buried deposits identified in the excavations. Trench profiles should be examined and mapped by the geoarchaeologist. The results of this evaluation will be included in the project report.

(4) The Contractor shall generate a detailed topographic map of the site following completion of the excavations, including the natural features of the surrounding landscape, the placement of the excavations (mechanical and hand), and the location of all features (cultural and natural) encountered during the excavations within the APE.

**B. Management Summary:** The Contractor will submit a Management Summary within one (1) month of completion of the field investigation which describes at a minimum the number and location of archaeological investigations and a summary of the distribution of cultural deposits identified during the investigations. The Management Summary will summarize the findings of the data recovery and include a schedule for completion of the report.



**C. Documentation and Reporting:** The Contractor shall adhere to the following documentation and reporting standards:

(1) In conjunction with the Phase III testing, appropriate laboratory procedures shall be implemented. All artifacts, samples (i.e., soil, radiocarbon, etc.), and documentation (i.e., field records, photos, profile drawings, etc.) recovered from the testing program shall be processed and/or stabilized. Laboratory analysis will follow standard procedures involving washing of all materials, sorting by artifact class such as lithics, ceramics, bone, shell, botanical remains, etc., and tabulation of all artifacts from the excavation. Special analyses, such as radiocarbon dating, floral/faunal analysis, and geomorphological analysis, will be conducted as warranted by the nature of recovered materials.

(2) A report of investigations shall be generated which details all field and laboratory methodology as well as the results of the Phase II testing program. The report will incorporate the initial research design, a discussion of the field methodology and any modifications (prior TVA approval required) to the research design resulting from experiences in the field, descriptions and location of all areas investigated, and provide appropriate reporting of all cultural materials and specialized studies generated by the project. The Contractor should state an opinion of whether the resource is eligible or not eligible for the National Register and the basis for such determination. The final report shall conform to professional standards and the Tennessee Division of Archaeology guidelines.

(3) The consultant will submit up to twenty (20) copies of the draft report with a digital copy (PDF format) on CD to TVA Cultural Resources for review of findings and recommendations. TVA will review the report and submit its findings and recommendations to the SHPO and culturally affiliated Indian tribes. The report must meet accepted professional standards for archaeological testing reports and should be of publishable quality. After receipt of review comments, a final report incorporating changes requested by TVA Cultural Resources will be submitted, including up to twenty (20) bound copies of the final report. TVA will notify your office as to the number of copies required for consultation at this point. A digital copy of the final report, in PDF format, will be submitted to TVA and the private developer.

**D. Site Inventory Form:** The Contractor shall complete an updated Tennessee Archaeological Site Inventory Form for site 40HA524 following completion of the final report of investigations. A copy of this updated site form shall be attached as an appendix to the final report.

### III. PERSONNEL QUALIFICATIONS

Any organization obtaining this contract must have qualified personnel meeting the following criteria:

(1) **Principal Investigator:** In addition to meeting the appropriate standards for archaeologists (below), the Principal Investigator should have the doctorate or an equivalent level of experience in field project formulation, execution, and technical monograph reporting. Suitable professional references may also be made available to obtain estimates regarding adequacy of prior work. If prior projects were of a type not ordinarily resulting in a published report, a narrative should be included detailing the PI's previous experience and suitable references.

(2) **Archaeologist:** Persons employed as project archaeologists must have appropriate qualifications as evidenced by training, education, and/or experience, and possess demonstrable competence in archaeological theory and methods, and in collecting, handling, analyzing, evaluating, and reporting archaeological data relative to the type and scope of the work proposed and must also meet the following minimum qualifications:

- A graduate degree in anthropology or archaeology, or equivalent training or experience;
- The demonstrated ability to plan, staff, organize, and supervise activity of the type and scope proposed;
- The demonstrated ability to carry research to completion as evidenced by timely completion of theses, research reports, or similar documents;
- Completion of at least thirty months of professional experience and/or training in archaeological field, laboratory, or library research, administration, or management. Archaeologists proposing to engage in historical archaeology should have at least two years of experience in research concerning archaeological resources of the historic period. Those carrying out research in prehistoric archaeology should have at least two years of experience in research of prehistoric periods.

#### **IV. ORGANIZATIONAL/INSTITUTIONAL QUALIFICATIONS**

Any organization obtaining this contract and sponsoring the PI must also provide or demonstrate access to the following:

- (1) Adequate field and laboratory equipment necessary to conduct whatever operations are defined in the scope of work;
- (2) Adequate facilities necessary for proper treatment, analysis, and curation of materials and data likely to be obtained from this project. This does not necessarily include such specialized facilities as pollen, geo-chemical or radiological laboratories, but does include facilities sufficient to properly preserve or stabilize specimens for any subsequent analyses.

#### **V. TREATMENT OF HUMAN REMAINS**

To the best of TVA's knowledge, no human remains, associated or unassociated funerary objects, sacred objects, or objects of cultural patrimony are expected to be encountered in the archaeological investigations. However, should human remains be encountered during the testing project, all ground disturbing activities in the vicinity of the human remains will be ceased immediately. TVA Cultural Resources, Tennessee State Archaeologist, and Hamilton County Coroner will be immediately notified. The treatment of any human remains discovered within the project area will comply with all State laws concerning archaeological sites and treatment of human remains.

#### **VI. CURATION**

Any archaeological remains, except human remains and associated funerary objects, recovered are the property of the private developer. This material will be returned and placed in his/her

care upon completion of the laboratory analysis and final report. However, to supply the landowner with this potential cost for this activity, please include in your budget costs for curation of this material at the University of Tennessee, or equivalent professional curatorial facility. The applicant, TVA, and the SHPO will consult on the selection of an appropriate curation facility.

Attachment 7  
(8 pages)



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499

August 29, 2008

Mr. E. Patrick McIntyre, Jr.  
Deputy State Historic Preservation Officer  
Tennessee Historical Commission  
2941 Lebanon Pike  
Nashville, Tennessee 37243-0442

Dear Mr. McIntyre:

TVA, DEFOOR CONDO DEVELOPMENT, 26A PERMIT, FINAL MEMORANDUM OF AGREEMENT (MOA), HAMILTON COUNTY, TENNESSEE

Please find enclosed five (5) copies of the final MOA with five (5) signatory pages regarding the proposed Defoor Condo development in Hamilton County, Tennessee. Once you have signed them, please return the documents to our office.

If you have any questions regarding this undertaking, please contact Erin Pritchard at 865.632.2463 or by email at [eepritchard@tva.gov](mailto:eepritchard@tva.gov).

Sincerely,

A handwritten signature in black ink that reads "Thomas O. Maher".

Thomas O. Maher, Ph.D.  
Manager  
Cultural Resources

EEP:IKS  
Enclosures

cc: Ms. Jennifer Barnett  
Tennessee Division of Archaeology  
1216 Foster Avenue, Cole Bldg. #3  
Nashville, Tennessee 37210

EDMS, WT 11D-K ✓

**MEMORANDUM OF AGREEMENT  
PURSUANT TO 36 CFR PART 800  
BETWEEN THE TENNESSEE VALLEY AUTHORITY  
AND THE TENNESSEE STATE HISTORIC PRESERVATION OFFICER  
REGARDING ARCHAEOLOGICAL SITE 40HA524  
HAMILTON COUNTY, TENNESSEE**

WHEREAS, the Tennessee Valley Authority (TVA) proposes to issue a permit under Section 26a of the *TVA Act* to Ken Defoor (Applicant) for the placement of fill on private property along Tennessee River Mile 464.5R; and,

WHEREAS, identification and evaluation of archaeological resources and historic structures have been conducted within the development, as referenced in Appendix A; and TVA and the Tennessee State Historic Preservation Officer (TNSHPO) agree that archaeological site 40HA524 is eligible for listing in the National Register of Historic Places (NRHP); and,

WHEREAS, TVA has consulted with TNSHPO regarding this undertaking; and,

WHEREAS, TVA, in consultation with TNSHPO, has determined that the undertaking will adversely affect archaeological site 40HA524 (Appendix B); and,

WHEREAS, TVA, in consultation with TNSHPO, has determined that the undertaking will not affect historic structures listed on or eligible for listing in the NRHP; and,

WHEREAS, TVA has notified the Advisory Council on Historic Preservation (ACHP) regarding this undertaking pursuant to 36 CFR § 800.6(a)(1); and,

WHEREAS, the Applicant has been invited to be a signatory to this Memorandum of Agreement (MOA) and will be responsible for all costs necessary for implementation of this MOA; and,

WHEREAS, TVA has consulted with the Eastern Band of Cherokee Indians, Cherokee Nation, United Keetoowah Band of Cherokee Indians in Oklahoma, The Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Kialegee Tribal Town, Thlopthlocco Tribal Town, Alabama-Quassarte Tribal Town, Alabama-Coushatta Tribe of Texas, Shawnee Tribe, Absentee Shawnee Tribe of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Seminole Tribe of Florida, Choctaw Nation of Oklahoma, and Jena Band of Choctaw Indians (Appendix C); and,

WHEREAS, the United Keetoowah Band and the Eastern Band of Cherokee Indians have been invited to be a signatory to this MOA; and,

WHEREAS, there is no evidence to date that human remains, associated or unassociated funerary objects, sacred objects, or objects of cultural patrimony (collectively termed cultural items) are present at site 40HA524, or at any other location within the project's area of potential effects (APE); and,

WHEREAS, the possibility still exists that cultural items could be inadvertently discovered during mitigation and construction activities associated with this undertaking; and,

WHEREAS, a Treatment Plan has been developed in consultation with signatories and invited signatories and is made a part of this MOA as Appendix D, Treatment Plan.

NOW THEREFORE, TVA and TNSHPO agree that the undertaking shall be implemented in accordance with the following stipulations to satisfy TVA's responsibilities under Section 106 of the *National Historic Preservation Act (NHPA)*. The TVA Federal Preservation Officer, or the designee thereof, shall act for TVA in all matters concerning the administration of this MOA.

## **STIPULATIONS**

TVA shall ensure that the following stipulations are carried out before the commencement of any ground-disturbing activities that could affect historic properties.

### **1. TREATMENT PLAN**

The Treatment Plan, attached as Appendix D, has been developed in consultation with the signatories and invited signatories. This treatment plan consists of data recovery at site 40HA524. TVA and the Applicant will ensure that the provisions of this Treatment Plan are carried out.

### **2. REPORTS**

TVA shall ensure that all investigations carried out in implementation of the Treatment Plan and undertaken for compliance with this MOA are recorded in formal written reports that meet the Secretary of Interior's Standards and Guidelines for Identification (48 FR 44720-23) and TNSHPO Standards and Guidelines for Architectural and Archaeological Resources Management Studies. The signatories, and invited signatories, shall be afforded thirty (30) days to review and comment on any reports submitted as compliance with this MOA.

### **3. TREATMENT OF HUMAN REMAINS AND FUNERARY OBJECTS**

The Applicant, in consultation with TVA, TNSHPO and Indian tribes that attach religious and cultural significance to NRHP-eligible properties (concerned Indian tribes), shall ensure that the treatment of any human remains and associated funerary objects discovered within the project's APE complies with all applicable state and federal laws. Should human remains be encountered during historic properties investigations or post-review discovery, all ground-disturbing activities, within 50 feet of the discovery, will be ceased immediately. The remains will be treated with respect to the deceased, and shall be protected from the time of discovery from further construction activities pending consultation to resolve treatment of such remains.

The Applicant shall immediately notify the Hamilton County Coroner, the State Archaeologist, TVA, and TNSHPO, should any human remains and/or associated funerary objects be encountered in connection with any activity covered by this MOA. TVA will notify the concerned Indian tribes within forty-eight (48) hours of being informed of the presence of these remains and/or funerary objects, and invite signatories and these Indian tribes to comment on any plans developed by the signatories and invited signatories to treat these remains and/or funerary objects. Whenever and wherever it is

feasible, human remains will be preserved-in-place. The Applicant, in consultation with TVA, TNSHPO, and concerned Indian tribes shall ensure that those remains and artifacts are treated in a manner that is consistent with ACHP's "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (2007). Further, this treatment will be conducted in accordance with the applicable provisions of Tennessee Code Annotated (T.C.A.) 46-4-101 et seq. ("Termination of Use of Land as a Cemetery,"); T.C.A. 11-6-116, ("Excavation of Areas Containing Native American Indian Remains,"); T.C.A. 11-6-119 ("Reburial of Human Remains or Native American Burial Objects following Discovery or Confiscation"), and Tennessee Rules and Regulations Chapter 0400-9-1 ("Native American Indian Cemetery Removal and Reburial."), and the policies of the culturally affiliated Indian tribes regarding the treatment of human remains and funerary objects, if such human remains are of Native American origin and cultural affiliation can be determined (Appendix E).

#### **4. TIMETABLE FOR COMPLIANCE**

- a. TVA and the Applicant shall ensure that Stipulations 1-3 of this MOA are met before commencement of any construction-related activities within intact archaeological resources at 40HA524. If development is to be completed in a phased construction, the stipulations of this MOA may be satisfied independently for each phase.
- b. Throughout this MOA, unless otherwise stated, the signatories and the invited signatories shall have thirty (30) days to review and comment on all reports concerning investigations of historic properties. Comments received from the signatories, and invited signatories, shall be taken into consideration in preparing final plans. TVA will supply copies of the final reports and data recovery plans to the signatories and invited signatories.

#### **5. ADMINISTRATIVE CONDITIONS**

- a. If Stipulations 1 to 4 have not been implemented within ten (10) years from the date of this MOA's execution, this MOA shall be considered null and void, unless all the signatories have agreed in writing as provided in Paragraph 5.b. (below) to an extension for carrying out its terms. Upon the MOA becoming null and void, signatories, and the invited signatories, will resume consultation pursuant to 36 CFR Part 800.
- b. If the implementation of Stipulations 1 to 4 has not commenced within four (4) years from the date of this MOA's execution, signatories, and the invited signatories, shall review the MOA to determine whether the MOA should be extended. If the signatories, and invited signatories, agree that an extension is necessary, they will consult in accordance with 36 CFR § 800.6(c) to make appropriate revisions to the MOA.
- c. The signatories, or invited signatories, to this MOA may agree to amend the terms of the MOA. Such amendment shall be effective upon the signatures of all signatories to this MOA, and the amendment shall be appended to the MOA as an attachment.

- d. Should any signatory, or invited signatory, object within thirty (30) days after receipt of any plans, specifications, contracts, or other documents provided for review pursuant to this MOA, TVA shall consult with the objecting party to resolve the objection.
- e. If any signatory to this MOA determines that the terms of the MOA cannot be or are not being carried out, the signatories shall consult to seek an amendment to the MOA. If the MOA is not amended, then any signatory may terminate the MOA. If the MOA is so terminated, TVA shall ensure that historic properties, within APE for the undertaking, are protected in accordance with Section 106 of *NHPA* until such time that TVA may enter into a new MOA with the signatories or request the comments of ACHP pursuant to 36 CFR § 800.7(a).



Execution of this MOA by TVA and TNSHPO, and implementation of its terms evidence that TVA has taken into account the effects of the undertaking on historic properties, and that TVA has complied with its obligations under Section 106 of the *NHPA*.

**SIGNATORIES**

TENNESSEE VALLEY AUTHORITY

By: Anda A. Ray Date: 08-31-08  
Anda A. Ray, Senior Vice President, Office of Environment and Research and Federal Preservation Officer

THE TENNESSEE STATE HISTORIC PRESERVATION OFFICER

By: E. Patrick McIntyre, Jr. Date: 9-3-08  
E. Patrick McIntyre, Jr., Tennessee State Historic Preservation Officer



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499

September 11, 2008

Mr. Ken Defoor, President  
Defoor Brothers Development  
6074 Shallowford Road  
Chattanooga, Tennessee 37421

Dear Mr. Defoor:

TVA, DEFOOR CONDO DEVELOPMENT, 26A PERMIT, FINAL MEMORANDUM OF AGREEMENT (MOA), HAMILTON COUNTY, TENNESSEE

Please find enclosed five (5) copies of the final MOA with five (5) signatory pages regarding the proposed Defoor Condo development in Hamilton County, Tennessee. Once you have signed them, please return the documents to our office.

If you have any questions regarding this undertaking, please contact Erin Pritchard at 865.632.2463 or by email at [eepritchard@tva.gov](mailto:eepritchard@tva.gov).

Sincerely,


A handwritten signature in black ink that reads "Thomas O. Maher". The signature is fluid and cursive.

Thomas O. Maher, Ph.D.  
Manager  
Cultural Resources

EEP:IKS  
Enclosures  
cc: Files, CR, WT 11D-K

**INVITED SIGNATORIES**

**DEFOOR BROTHERS DEVELOPMENT**

By:   
Ken Defoor, President

Date: 9-23-08

**UNITED KEETOOWAH BAND**

By: \_\_\_\_\_  
George G. Wickliffe, Chief

Date: \_\_\_\_\_

**EASTERN BAND OF CHEROKEE INDIANS**

By: \_\_\_\_\_  
Mitchell Hicks, Principle Chief

Date: \_\_\_\_\_