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40RE226-233

**ARCHAEOLOGICAL SURVEY OF PROPOSED
MODIFICATIONS TO STATE ROUTE 58/95,
ROANE COUNTY, TENNESSEE**

DUVALL AND ASSOCIATES, INC

CULTURAL RESOURCES AND ENVIRONMENTAL SERVICES

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**ARCHAEOLOGICAL SURVEY
OF PROPOSED STATE ROUTE 58/95 MODIFICATIONS
ROANE COUNTY, TENNESSEE**

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Management Summary

Between 26 July and 5 August 1995 a Phase I archaeological survey of areas to be affected by proposed modifications to State Route 58 and State Route 95 (Gallaher Road/Oak Ridge Turnpike) between Interstate 40 and Wisconsin Avenue in Oak Ridge, Tennessee, was conducted by DuVall and Associates, Inc., for Neel-Schaffer, Inc., and the Tennessee Department of Transportation (TDOT). The project involves the expansion of the existing highway from two to four lanes, requiring the acquisition of from 15-46 meters (50-150 feet) of additional right of way. The primary goal of the survey was to identify historic and prehistoric archaeological resources within the project area and make a preliminary assessment of their potential eligibility for inclusion in the National Register of Historic Places. Investigations were conducted under Tennessee Division of Archaeology Permit No. 000199.

The alignment totals approximately 16.1 km (10 miles) in length, traversing the narrow valley floors between Chestnut Ridge, Pine Ridge, and Black Oak Ridge, and crossing the Clinch River at River Mile 14. Between the Clinch River and the City of Oak Ridge the alignment crosses the U.S. Department of Energy's (DOE) Oak Ridge Reservation. Many sections of the project area have been heavily modified by commercial and residential development, by previous road construction, and, within portions of the DOE reservation, extensive industrial development. The survey consisted of a combination of background research, pedestrian survey of the entire project area, and systematic shovel testing on habitable landforms.

A total of seven archaeological sites, involving four prehistoric components of undetermined cultural affiliation and five historic components dating to the late 19th or early-mid 20th centuries, were identified within existing and proposed state right-of-ways. Sites 40RE226, 40RE228, and 40RE230, contain ephemeral and/or badly disturbed prehistoric and historic period components and are not considered eligible for inclusion in the National Register. The primary component at site 40RE227 consists of an early or mid-20th century residential occupation. This site is not considered to be significant because of its late date and general lack of component distinctiveness. Sites 40RE231, 40RE232, and 40RE233 fall within the Department of Energy reservation. Site 40RE231 is a pre-1935 house site associated with the Wheat Community, one of the four rural settlements destroyed by the Manhattan Project in 1942. This site should be considered potentially eligible for National Register inclusion, pending further site definition and delineation of research goals in DOE cultural resources planning. The site[

Exempted from Disclosure by Statute
]should not

be affected by proposed construction activity. It is unlikely that a determination of eligibility will be required at this time. Sites 40RE232 (which includes a Solid Waste Management Unit) and 40RE233 include the remains of facilities associated with the early stages of Oak Ridge reservation development and operations (*i.e.*, Clinton Engineer Works/Manhattan Project phase) between 1942 and 1950. Neither of these sites is considered eligible for National Register inclusion under Criteria D (*i.e.*, as an archaeological resource). They may, because of their historical associations, be considered eligible under Criteria A. We recommend that TDOT confer with DOE and K-25 cultural resource planners in making this determination.

Table of Contents

Management Summary	i
Table of Contents	ii
Introduction	1
Project Setting	1
Project Description	1
Environmental Setting	4
Regional Cultural History	5
Previous Research	15
National Register Listed or Eligible Sites	17
Survey Methodology	17
Survey Results	21
I. I-40 to Clinch River	21
40RE226	22
40RE227	26
II. Clinch River Terraces	28
III. Clinch River to Wisconsin Avenue	33
40RE233	35
40RE232	39
40RE231	41
40RE230	44
40RE228	46
Summary and Conclusions	47
References Cited	48
Appendix A, Correspondence	53

List of Figures

1. Generalized physiographic and political map of Tennessee	2
2. State Route 58 / 95 project area, Roane County, Tennessee.....	3
3. 1935 roadways and structures in southern project area.....	18
4. 1935 roadways and structures in northern project area.....	19
5. Site locations, Project Section I.	23
6. Site 40RE226, showing site features, location of shovel tests	25
7. Site 40RE227, showing site features and shovel test locations	27
8. Terrace and highway berm north of Clinch River	29
9. Project area at Clinch River crossing, showing previously recorded sites, location of profile cuts	31
10. Representative profile, [<small>Exempted from Disclosure by Statute</small>].....	32
11. Portion of K-25 Plant site from visitors center on SR 58	34
12. Site of portion of Wheat Community, SR 58 in background	34
13. Site locations, Project Section III	36
14. Site 40RE233, showing structure loci and shovel tests	37
15. Site 40RE232, general locus of [<small>Exempted from Disclosure by Statute</small>]	40
16. Site 40RE231, general location.....	42
17. Sites 40RE228 and 40RE230, SR 95 [<small>Exempted from Disclosure by Statute</small>]	45

List of Tables

Table I. Cultural Chronological Framework for Eastern Tennessee.....	6
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INTRODUCTION

This report describes the conduct and results of a Phase I archaeological survey of areas to be affected by proposed modifications to portions of State Route 58 and State Route 95 (Gallaher Road/Oak Ridge Turnpike) between Interstate 40 and Wisconsin Avenue in Oak Ridge, Tennessee. The project involves the expansion of the highway from two to four lanes, requiring the acquisition of from 15-46 meters (50-150 feet) of additional right of way on either side of the existing construction. The survey was conducted by DuVall and Associates, Inc., for Neel-Schaffer, Inc., and the Tennessee Department of Transportation.

The investigations reported were conducted in compliance with the National Historic Preservation Act of 1966 (PL 89-665; 16USC470; 80 Stat.915) and implementing procedures (36CFR60, 36CFR800), the primary goal being to identify and assess the eligibility of archaeological remains within the proposed project area for inclusion in the National Register of Historic Places.

Field investigations were conducted between 26 July and 5 August 1995 by the author with the assistance of Matt Spice, under Tennessee Division of Archaeology Permit No. 000199. The following Department of Energy (DOE) and K-25 personnel provided assistance in identifying sites located on the Oak Ridge Reservation: Mr. Ray Moore, DOE Cultural Resources Coordinator; Mr. Peter Souza, Oak Ridge National Laboratories; and Mr. Jim Rogers, K-25 Site Environmental Compliance Officer. Their help is greatly appreciated.

PROJECT SETTING

Project Description

The project area is located in northeastern Roane County, Tennessee (Figure 1). The alignment totals approximately 16.1 km (10 miles) in length, traversing the narrow valley floors between Chestnut Ridge, Pine Ridge, and Black Oak Ridge, and crossing the Clinch River at River Mile 14. From I-40, SR 58 runs linearly northeast up a narrow valley floor lying between Pine Ridge and Chestnut Ridge. Within two kilometers of the Clinch River, the alignment turns north, crossing Pine Ridge at the Clinch River water gap. At this point, the highway crosses the western boundary of the DOE reservation. The highway crosses the narrow Clinch River terraces on Gallaher Bridge and emerges on the north side of the river to the north of Pine Ridge. The project continues northward to the vicinity of Poplar Creek and then turns northeast, following the southern boundary of the K-25 plant site to the vicinity of Blair Road. Near the northeast end of McKinney Ridge, SR 58 meets SR95 (White Wing Road) in a large interchange loop. The project continues along SR 95, turning around the northeast end of McKinney Ridge into the East Fork Poplar Creek valley and continuing northeast along the valley floor between East Fork Ridge and Blackoak Ridge. The project crosses East Fork Poplar Creek, exiting the DOE reservation, and continues up the valley floor to a terminus just short of the Oak Ridge Turnpike Checking Station, about 240 meters east of the intersection of Wisconsin Avenue (Figure 2).

GENERALIZED GEOLOGIC MAP OF TENNESSEE

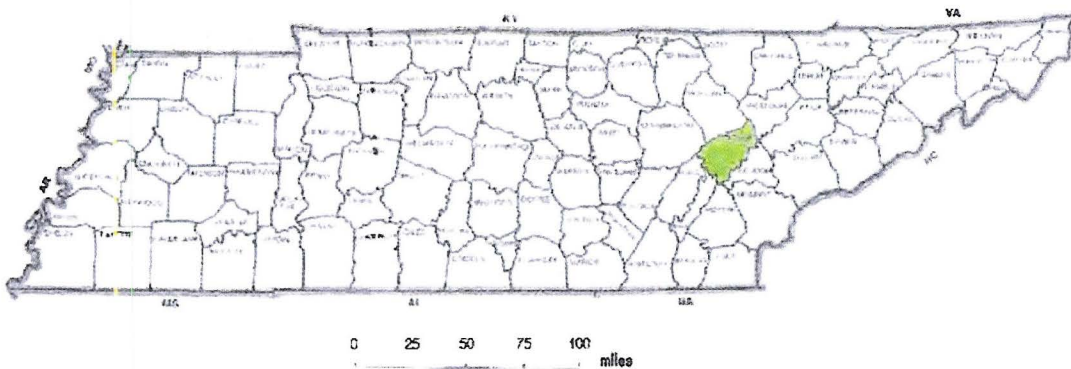
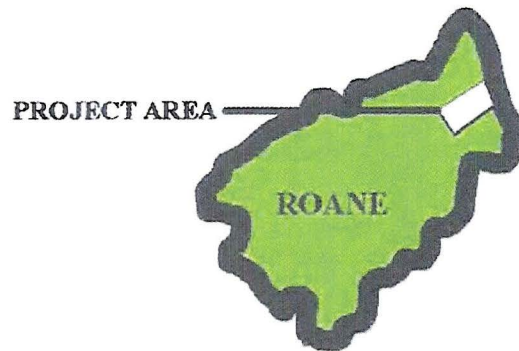
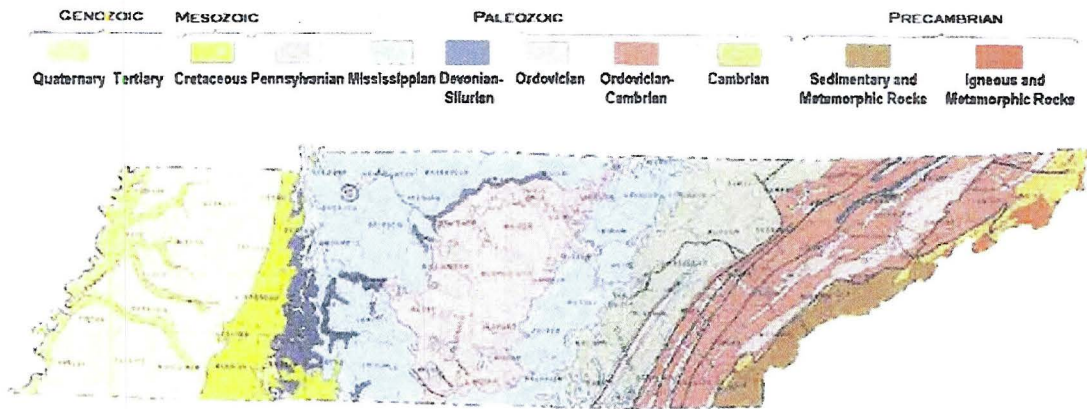


Figure 1. Generalized Physiographic & Political Maps of Tennessee, Showing Location of the SR58/95 Survey Area in Roane County.

With the exception of two new connecting loops to Bear Creek Road (located immediately north of the Clinch River terraces) the entire project is immediately adjacent (within a maximum of 46 meters) to the existing roadway.

Environmental Setting

The project area falls within the Ridge and Valley physiographic province (Fenneman 1938), the section in East Tennessee being generally referred to as the Great Valley (e.g., Amick and Rollins 1937). This region is typified by a series of long, narrow, generally even-topped ridges and intervening valleys aligned in a southwest-northeast direction. These have been formed by the differential erosion of folded and faulted shale, dolomite, limestone, sandstone, and siltstone rocks of Cambrian, Ordovician and Silurian geologic age. The higher ridges are capped with relatively resistant, steeply dipping sandstone, siltstone, or cherty dolomite, while the valley floors are principally underlain by softer shales and limestones. Surface drainage patterns are largely dictated by the prevailing topography, forming a trellised pattern of linear streams which crosscut the ridgelines through a relatively small number of water gaps. Transportation routes follow much the same pattern. The survey area, as noted above, follows the valley floors, cutting across the ridgelines only at existing water gaps. Although the overall local relief may vary by as much as 100 meters, elevations differ by less than 30 meters within the project area as a whole.

The project right of way, with few exceptions, falls on the lower side, foot, and toe slopes of the major southwest-northeast trending ridgelines. Landforms, as a whole, are gently to moderately sloping, but level areas are relatively common in the form of small localized benches and ridgecrests. Soils in these areas are derived primarily from *in situ* weathering with some colluvial additions in favorable downslope positions. Soils in these locations are usually classified as silt loams, cherty silt loams, or clay loams. As much as 75% or more of the soils examined in these situations can be considered severely eroded, with little or no solum remaining. In many places regolithic materials or bedrock are exposed at the surface. Much of this is the product of deforestation and intensive agricultural use over the past two centuries.

Alluvial deposits are uncommon in the project area. Major alluvial deposits occur only on the narrow terraces at the Clinch River crossing, and narrow (5-15 meter), localized belts of poorly drained alluvium are present along the East Fork of Poplar Creek. These areas are discussed separately, below.

The area falls within the Carolinian Biotic Province as defined by Dice (1943:16), a biologically rich and diverse area. The vegetation is characterized as temperate-deciduous, falling within Braun's (1950:192) Oak-Chestnut forest region and composed of a limited number of co-dominant canopy species and a rich herbaceous understory. The original biological composition has been dramatically altered, however, by both extensive forest clearing and logging and by the chestnut blight, which destroyed much of the original character of the forest. Most of the remaining forest consists of submature regrowth. A considerable amount of acreage, specifically within the DOE reservation, has been replanted in pines.

Regional Culture History

Archaeological investigations in the Eastern Woodlands of North America demonstrate that the area has been occupied since at least 14000 and perhaps as early as 17000 years ago (Adovasio et al., 1977). A series of fundamental changes in the material culture, subsistence activities, and social organization of prehistoric Native American cultures occurred over this period of time and are referred to as "cultural traditions" (Willey and Phillips 1958). With the addition of chronometric dating, the tradition concept continues to be used as a basic classification scheme by prehistoric archaeologists in the Southeastern U. S. These traditions, along with their approximate temporal boundaries are: Paleo-Indian (10000 B.C. 8000 B.C.), Archaic (8000 B.C.-900 B.C.), Woodland (900 B.C.-A.D. 900), and Mississippian (A.D. 900-A.D. 1600). The Historic Period in the Eastern Tennessee Valley included occupations by the Overhill Cherokee (A.D. 1600- A.D. 1838) and, after 1770, settlement by Euro- and African-Americans. A basic outline of this cultural history is provided below and in Table I. The reader is also referred to synthetic treatments of Southeastern prehistory by Steponaitis (1986) and Smith (1986) and to Chapman (1985), who provides an excellent summary of recent research in the Eastern Tennessee Valley.

Paleo-Indian Period (10000 B.C.-8000 B.C.)

Archaeological research has documented the presence of Native Americans in eastern Tennessee by at least 12000 years ago. It is widely accepted that the aboriginal inhabitants of the New World reached the North American continent from Asia by a land bridge formed across the Bering Strait during the last glaciation, though the precise timing and nature of these migrations is still open to question (Meltzer 1989). The earliest cultural complex generally recognized in the eastern United States is Clovis. The surviving material artifacts characteristic of the Clovis complex are lanceolate fluted projectile points, which are also typical of the slightly later Cumberland cultural complex. The Paleo-Indian toolkit also included unfluted lanceolate projectile points, bifacial knives and drills, and a variety of relatively formalized flake tools including endscrapers and gravers (frequently executed on blades), and splintered wedges (*pieces esquillees*). Point types that are considered transitional between the Paleo-Indian and Archaic periods are Quad (ca. 8800-8000 B.C.), Beaver Lake (ca. 8500-8000 B.C.), Dalton (8200-7800 B.C.) and Greenbrier (ca. 8000-7500 B.C.).

Unfortunately, Paleo-Indian sites in the eastern United States are rarely well preserved. Consequently, most information on Paleo-Indian subsistence and settlement is based on analysis of lithic assemblages and/or on inferences derived from analysis of site patterning. Based largely on early investigations at western North American sites, it was initially thought that the subsistence economy of Paleo-Indian cultures was based primarily on big game hunting. This does not, however, appear to have been the case in the Mid-South and Southeast. Meltzer (1988:41) suggests that the Paleo-Indian inhabitants of these areas were generalists, who exploited a variety of subsistence resources, including seeds, nuts, small mammals, and, perhaps only occasionally, big game. Faulkner (1989), noting that Paleo-Indian sites in Tennessee do not appear to exhibit any discernible patterning with respect to environmental or topographic variation, suggests that the seeming

Table 1. Cultural Chronological Framework for Eastern Tennessee.

Period	Temporal Unit	Phase	Estimated Time Range
Historic Historic Cherokee	Anglo-American Overhill	Anglo-American Overhill	A.D. 1600-1838
Late Mississippian (Mississippian III)	Dallas & Mouse Creek	Dallas	A.D. 1200-1600
Early Mississippian (Mississippian II)	Hiwassee Island I & II	Hiwassee Island	A.D. 1000-1200
(Mississippian I)	Martin Farm	Martin Farm	A.D. 900-1000
"Late Woodland?"	Hiatus?	?	A.D. 600-900? ¹
Middle Woodland (Woodland III)	Icehouse Bottom	Icehouse Bottom	A.D. 350-600
(Woodland II)	Patrick	Patrick	200 B.C.-A.D. 350
Early Woodland (Woodland I)	Bacon Bend	Watts Bar	1000-200 B.C.
Late Archaic	Undesignated (Iddins)	Iddins	1800-1000 B.C.
	Undesignated (Savannah River)	Savannah River	3000-1800 B.C.
Middle Archaic	Undesignated (Sykes)	-	4500-3000 B.C. ?
	Undesignated (Guilford)	-	5000-4000 B.C. ?
	Morrow Mountain	Morrow Mountain	5500-5000 B.C.
	Stanly	Stanly	5800-5500 B.C.
	Stanly	Kirk stemmed	6000-5800 B.C.
Early Archaic	Kanawha	Kanawha	6100-5800 B.C.
	LeCroy	LeCroy	6500-5800 B.C.
	St. Albans	St. Albans	6900-6500 B.C.
	Upper Kirk	Upper Kirk	7400-6800 B.C.
	Lower Kirk	Lower Kirk	8000-7300 B.C.
Transitional	Undesignated (Dalton)	-	8500-8000 B.C. ?
Paleo-Indian	Undesignated (Clovis)	-	10000-8000 B.C. ?

After Kimball (1985); Schroedl, et al. (1985); and Davis (1990).

¹ The Late Woodland period in the eastern Tennessee area is characterized by an "almost total lack of data" (Davis 1990:59).

randomness of site location choices may reflect a dispersed, generalized hunting and gathering adaptation.

Paleo-Indian sites occur throughout Tennessee, and are relatively common in the Western Valley and Interior Low Plateaus, areas which were undoubtedly important from the standpoint of lithic resource procurement. Paleo-Indian components occur with lesser frequency in East Tennessee, where they usually are encountered as surface scatters. Chapman (1977) made extensive efforts to identify buried Paleo-Indian sites in the lower Little Tennessee River Valley, with entirely negative results.

Archaic Period (ca. 8000 B.C.-900 B.C.)

The Archaic Period in eastern North America is generally perceived as an adaptive response to the changing post-Pleistocene environment, including a gradual shift toward a wide spectrum of adaptive strategies characterized by reliance on small game hunting, wild plant food harvesting and the exploitation of riverine resources. The technological assemblage reflects the development of this wider economic base in a number of ways. A larger and more varied tool kit was produced, including several types of stemmed and notched projectile points; cutting, piercing, and scraping implements of stone and bone; heavy ground stone tools for wood working and specialized stone objects such as ground and polished atlatl weights and tubular pipes, was produced. Plant processing tools, such as mortars, pitted "nutting" stones and pestles appeared for the first time. Fishhooks and "net sinkers" are found at some sites. Archaic settlement patterns and social organization have been interpreted to be functionally interrelated to the varied patterns of regional adaptation, but all are characterized by the shifting exploitation of seasonally available resources and habitats. Relatively high rates of group mobility are considered characteristic of the Archaic as a whole, however, by the end of the period evidence of increasing investment in fixed facilities such as storage pits and houses suggests that groups were becoming less mobile. It is also during the later stages of the Archaic that the first experiments with cultigens (*i.e.*, cucurbits) and ceramics (in the Middle Tennessee Valley) occur.

The Archaic has traditionally been subdivided into Early (8000-6000 B.C.), Middle (6000-3000 B.C.), and Late Archaic (3000-900 B.C.). Early Archaic phases in the eastern Tennessee Valley generally take their names from the most distinctive types of associated projectile point forms: the Kirk Phase (dating 8000-7000 B.C.), and the succeeding LeCroy, St. Albans, and Stanley phases (between 7000-6100 B.C.; *e.g.*, Chapman 1985). Early Archaic sites are relatively common in a variety of topographic settings throughout East Tennessee, suggesting a fairly large and mobile population. The best defined components are those preserved in stratified alluvial sites in the lower Little Tennessee River valley (*e.g.*, Chapman 1975, 1977, 1978, 1979). Although these riverine sites generally lack evidence of substantial structures, they often exhibit activity areas, frequently including site furniture, around prepared clay hearths. Light duty structures are considered probable at these sites and they are generally thought to represent seasonal or multi-seasonal residence by relatively small bands or family groups. Upland locales are smaller and generally exhibit less in the way of material abundance and artifact diversity, and appear to represent both field camps and residential base camps used during extended seasonal foraging activity. As discussed by Chapman and Shea (1981), the subsistence base during the Early Archaic appears to have been based on a fairly broad spectrum of plant and animal species. As in later periods, the white-tailed deer appears to

have been the primary staple; hickory nuts and acorns are the predominant (*i.e.*, most consistently preserved) plant food remains.

The Middle Archaic appears to be characterized by significant changes in settlement patterning and a lesser degree of residential mobility. Brown and Vierra (1983) suggest that this development arises from both environmental pressures and those relating to population increase and/or territorial competition. Environmental change relating to postulated warming/drying trends during the mid-Holocene may also have been responsible for some of the settlement and subsistence trends of this period. Subsistence patterns basically resemble those of the Early Archaic period, however, both site locations and the frequency of certain artifact types of artifacts, such as net sinkers, suggest a focus on the use of riverine resources. Shellfish appear to be an important component of the Middle Archaic diet. Although common, Middle Archaic components are not well represented in the eastern Tennessee Valley in comparison with both earlier and later periods.

The late Middle Archaic and Late Archaic periods are characterized by an increasing variety of projectile point forms, as well as a more sedentary lifestyle. Permanent structures appear along with a greater differentiation of site types. Squash, gourd, chenopodium and sunflower are domesticated for the first time (Chapman and Shea 1981). There is a greater investment of energy in less portable objects, such as soapstone bowls, which would have been heavier than skin bags or baskets. In addition, the development of a complex mortuary ritual suggests the attachment of corporate groups to specific areas (Chapman 1985; Charles and Buikstra 1983).

Two Late Archaic phases, Savannah River (3000-1800 B.C.) and Iddins (1800-1200 B.C.), have been defined for eastern Tennessee. Savannah River is earlier and known chiefly from excavations at the Bacon Bend site, where the earliest known evidence for the domestication of squash in eastern Tennessee was documented. Lithic artifacts include *Savannah River Stemmed* projectile points made of slate and quartzite. The Iddins Phase was documented through excavations at the Harrison Branch, Patrick and Iddins sites (Schroedl 1975, 1978; Chapman 1981). The best context investigated for this phase is Stratum III at the Iddins site, which contained a row of rock-filled hearths along the front edge of the first terrace. Associated artifacts include *Iddins Undifferentiated Stemmed* projectile points, grooved-ax fragments, and pieces of carved soapstone bowls (Chapman 1981).

Evidence for regional exchange between the groups of eastern Tennessee and those to the south and east is demonstrated by the appearance in the archaeological record of objects made of soapstone or steatite. Marine shell from both the Gulf of Mexico and Atlantic coasts, as well as copper from the Lake Superior region, are also recovered in Late Archaic contexts and provide further evidence for regional exchange networks (Chapman 1985).

Woodland Period (ca. 900 B.C. - A.D. 900)

The Woodland Period in eastern North America is marked by the elaboration of several characteristics present at the close of the Late Archaic times. Increasing sedentism, heightened cultural complexity and social exchange, intensification of horticulture and the widespread use of ceramic technology are traits shared by most Woodland Period cultures.

The establishment of an elaborate mortuary complex, including the construction of burial mounds and ceremonial earthworks, indicates the development of a non-egalitarian social order (e.g., Brose and Greber 1979; Buikstra 1976). Wide-ranging trade networks are evident in the exchange of both raw materials and finished objects between peoples across the southeast and Ohio Valley. A suite of wild plant foods, specifically a number of small starchy seeds, was being intensively utilized and some species were brought under domestication. By Middle Woodland times these included sumpweed (*Iva annua* L.), maygrass (*Phalaris carolinia*), chenopod (*Chenopodium* sp.) and sunflower (*Helianthus annuus* L.) (Yarnell 1976:270-71). Corn (*Zea mays*) also appears in the archaeological record during Middle Woodland times, but was not yet a staple.

Archaeologists customarily divide the Woodland period into Early (ca. 900 B.C.-ca. A.D. 0), Middle (ca. A.D.-600) and Late (A.D. 600-900). The original Woodland chronology for East Tennessee was based on investigations in the Watts Bar and Chickamauga reservoir areas in the 1930's and early 1940's (Lewis and Kneberg 1941, 1946). Several revisions/ refinements to this chronology have subsequently been made (e.g., McCollough and Faulkner 1973; Kimball 1985; Schroedl, *et al.* 1985).

McCollough and Faulkner (1973) defined an Early Woodland sequence for East Tennessee based on ratios of crushed quartz-tempered sherds to limestone-tempered sherds, consisting of, from earliest to latest, the Watts Bar, Greeneville, and Long Branch phases. The Watts Bar component is represented by pottery that is quartz or sand-tempered and fabric- or cord marked. The Greeneville phase is defined by the presence of both Watts Bar quartz-tempered and Long Branch limestone-tempered wares, with the Watts Bar wares comprising the greater quantity. Finally, the Long Branch phase is characterized by the predominance of Long Branch Fabric Marked limestone-tempered wares (McCollough and Faulkner 1973:93).

Kimball (1985) has proposed a revised chronology (Table 2-B) for the lower Little Tennessee River Valley in which the Early Woodland Watts Bar designation is replaced by a Woodland I ceramic cluster dating between 900 B.C. to 200 B.C. The original Greeneville and Long Branch units are likewise redefined as Woodland II, dated between 200 B.C. to A.D. 350. A Connestee Phase, distinguished primarily by sand tempered plain, fabric marked, and stamped pottery, is also recognized. Dating from A.D. 350- ca. A.D. 650 or later, this unit is coeval with, and presumably related to, Connestee cultures in western North Carolina. Evidence of "Hopewellian" exchange in the form of exotic cherts and cut sheet mica are associated with some Connestee Phase components. The earliest widely accepted date for the presence of corn in the Southeast (A.D. 439) comes from a Connestee Phase context in eastern Tennessee (Chapman and Shea 1981).

The Late Woodland cultural component for eastern Tennessee was first defined and described by Lewis and Kneberg (1946) as the Hamilton Focus. The defining characteristics of this component were the construction of conical or round burial mounds, the predominance of limestone tempered pottery exhibiting a mix of cord-marked, plain and brushed, and incised and punctate decorated surface treatments, and the use of a small triangular arrow point with distinctive incurvate margins (Lewis and Kneberg 1941:27-28).

In Lewis and Kneberg's (1946) reconstruction, the Hamilton settlement pattern consisted of households "strung out along the riverbanks" with burial mounds located on higher terraces away from the river. Burial mounds were considered focal points in a settlement system that was otherwise "rather loosely organized". Subsistence was believed to be based primarily on fresh water mussels as the chief source of protein, augmented by the collection of plants. Agriculture was considered to be either unlikely, or at best to have formed a minimal part of the Hamilton culture diet.

Unfortunately, no well defined habitation sites of this period have been excavated. Lewis and Kneberg's hypothetical settlement pattern was based on observations at a number of shell heaps in the Chickamauga and Watts Bar basins which they believed were "individual household middens". Absence of structural remains on these sites, they believed, was due to poor preservation or light construction techniques. More recent investigations of Late Woodland middens, at 40LD46 and 40RH62, have also failed to produce evidence of structures. Investigations at these sites did, however, add to information about Hamilton subsistence patterns through well controlled faunal and botanical studies (McCollough and Faulkner 1973; Prescott 1977) which suggested that the subsistence base was richer and more diverse than previously envisioned. McCollough and Faulkner (1973:124) suggest that the Hamilton shell middens represent seasonal occupations, rather than permanent settlements.

In the absence of compelling evidence for habitation sites, Hamilton is sometimes regarded as little more than a distinctive mortuary complex. New dates from Hamilton mounds have also occasioned considerable uncertainty about the relationship of Hamilton and Mississippian cultural phenomena. Hamilton burial mounds are now known to have been used over a much wider time span than originally thought; recent investigations in Roane and Rhea counties provide a suite of radiocarbon dates between A.D. 700 and A.D. 1200 (Schroedl 1973; Schroedl 1990:173; Schroedl, et al., 1990: Table 20). This range, plus the fact that much later Dallas burials are intrusive in many Hamilton mounds, suggests that the Hamilton and Mississippian cultures are lineally related. Schroedl (1978) suggests that Hamilton is an incipient form of Early Mississippian and both Kimball (1985) and Schroedl, et al. (1985), place the Hamilton mortuary complex in the Mississippian I period. Clearly, this "mound-based" interpretation also has a number of problems. Carefully controlled and well dated excavations on habitation sites of this period are badly needed for the further definition of the Late Woodland in east Tennessee.

Mississippian Period (ca. A.D. 900-A.D. 1600)

The Mississippian cultures at their apex are generally regarded as having achieved the highest level of sociocultural and political complexity known to North America north of Mexico. The designation "Mississippian" has been used to refer to a number of prehistoric human populations in the Eastern Woodlands, based largely on the presence of a number of material culture traits including shell-tempered pottery and rectangular, truncated, substructural pyramidal mounds. Smith (1978) describes the term "Mississippian" as referring to those prehistoric populations of the eastern deciduous woodlands during the time period A.D. 800-1500 "that had a ranked form of social organization, and had developed a specific complex adaptation to linear, environmentally circumscribed floodplain habitat zones" (Smith 1978:486). The Mississippian culture is marked by a

primary reliance on horticulture for its subsistence base, including the extensive cultivation of several varieties of maize, beans, and squash. This adaptation, associated with the concomitant growth of large populations, fostered territoriality and competition for suitable land. It also provided an economic surplus that permitted the development of craft specialization and related exchange networks. These developments, in turn, can be associated with the increased levels of social and political complexity exhibited in Mississippian site structure, settlement patterning, and symbolic expression. This cultural adaptation developed in the Mississippi Valley and spread throughout a large portion of the Southeast through both the migration of people and the transmission of ideas to indigenous populations.

Many of the larger Mississippian centers were fortified by a defensive stockade encompassing large areas. These sites are considered the focal point of Mississippian populations and were the residence of socio-political elites. Mississippian mortuary patterns indicate a ranked society in which individuals occupied hierarchical positions with differential access to both resources and power. A hierarchical settlement organization, ranging from small farmsteads to large villages which exercised political and religious control over large areas, is also associated. The focal point of the major centers was a large open plaza bordered by flat-topped mounds, substructures for buildings which served both civic and religious functions as well as being the residence of the elites of Mississippian society. The larger centers also contain evidence of a trade network that dealt with the exchange of both exotic and utilitarian items; chiefly salt, copper and various chert types. Copper, exotic cherts, and marine conch shells were often used for the production of special "ceremonial" items, which symbolically expressed elements of Mississippian myth and ritual. Mississippian ceramics are functionally and stylistically more diverse than those of the Woodland period. Effigy wares appear modeled in the forms of both human and animal shapes, while others are painted with decorative elements. Utilitarian wares, used for the preparation and storage of food, are also present. Tempering in both categories of ceramics is characteristically crushed mussel shell.

Investigations at ^{Exempted from Disclosure by Statute} [] along with additional comparative studies in the lower Little Tennessee River valley, ^{Statute} have contributed to a greater understanding of the emergence of Mississippian culture in east Tennessee (Schroedl, *et al.*, 1985; Schroedl, *et al.*, 1990). Dating from A.D. 900 to A.D. 1000, the ^{Exempted from Disclosure by Statute} [] Phase appears to represent the rapid cultural transformation of indigenous Woodland populations and includes agricultural intensification, increased settlement size and evidence of greater social stratification. Technological changes, specifically, the shift from limestone tempered ceramics to shell tempered wares, with ceramic assemblages including both kinds of wares as well as mixed-tempered vessels, are indicative of the transitional character of the phase. Other Mississippian characteristics appear full-blown. ^{Exempted from Disclosure by Statute} [] components, for example, are associated with the earliest evidence of temple mounds in the region.

The succeeding Hiwassee Island Phase (A.D. 1000-A.D. 1300) is associated with a major shift in settlement location, specifically the movement of residential sites from the floodplain to higher terrace settings. This suggests a response to frequent flooding, and thus may be indicative of greater residential stability. The settlement shift may also be indicative of an increased competition for agricultural lands prompted by population growth (Schroedl, *et al.*, 1990:188). Certainly, the shift in settlement appears to be accompanied by significant increases in settlement size, complexity and degree of sedentism. These changes do not appear, however, to be associated with significant

changes in subsistence behavior. Botanical assemblages suggest no variation between Martin Farm and Hiwassee Island phases, with hickory nutshell, acorn shell, walnut shell and maize--both eight- and ten-rowed varieties--represented in comparable amounts. Squash, gourd, chenopodium, sunflower, smartweed and sumpweed are also constituents of both assemblages (Schroedl, *et al.*, 1985:411-456). Greater formal and stylistic diversity is demonstrated in Hiwassee Island ceramic assemblages, which are distinguished by the expanded and refined use of shell tempered pottery (Schroedl, *et al.*, 1990:185-188).

The succeeding Dallas Phase represents the "classic" expression of Mississippian Culture in the Eastern Tennessee Valley. First described by Lewis and Kneberg (1941, 1946), the phase is associated with significant changes in community plan, subsistence, architecture, and burial customs, as well as other forms of material culture. The settlement pattern included large palisaded villages, such as those at [Exempted from Disclosure by Statute], which covered several acres and contained one or more platform mounds and associated plaza areas. Other characteristics of Dallas material culture include rectangular houses of single-post construction; shell tempered pottery with plain and cord-marked exteriors, strap and lug handles, and decorations consisting of incising or modeling; and flexed pit burials usually accompanied by grave offerings consisting of small pots or other grave goods (Lewis and Kneberg 1941, 1946). The Dallas lithic assemblage--with the exception of Dallas excurvate triangular projectile points, and perhaps celts--resembles that of Martin Farm and Hiwassee Island phases (Davis 1990:61).

The Dallas settlement pattern is characterized by the distribution of compact towns along major alluvial terraces. The majority of Dallas towns have a single substructure mound topped by a single primary structure, and only a few towns such as Toqua (40MR6) have more than one structure on a mound or more than one mound (Polhemus 1987:1246).

Historic Period (ca. A.D. 1600-A.D. 1838)

Beginning perhaps as early as the late 15th century, Mississippian cultures entered a period of rapid decline, a phenomenon which may have been exacerbated by the disease and political disruptions which accompanied the early Spanish explorations in the Southeast. By the early 17th century Mississippian polities, including those in East Tennessee, were a shadow of their former selves. Although elements of the Dallas culture appear to persist well into the historic period in some parts of eastern Tennessee (Polhemus 1987), it is relatively clear that the area was slowly being abandoned. The exact relationship between the Dallas Phase cultures and their primary successors in eastern Tennessee, the Cherokee, is far from clear. It appears, however, that the Tennessee (or Overhill) Cherokee moved into the area from the mountain valleys of North and South Carolina as the Dallas polity collapsed, absorbing, or perhaps displacing, the remnant elements of the local population.

The historic center of Cherokee occupation in Tennessee was east of the Tennessee River in the valleys of the lower Hiwassee and lower Little Tennessee River. Although the Cherokee claimed all of eastern Tennessee as a hunting ground, there is no historical or archaeological evidence for the establishment of major Cherokee settlements in the Clinch or Powell river valleys. Archaeological surveys of the Clinch River area do not, in fact, indicate a major Native American

presence during the Historic Period. Accounts of 18th century travelers likewise suggest that the area was unsettled. In 1791 the Cherokee ceded their lands east of the Clinch River to the United States under the terms of the Holston Treaty; remaining lands west of the river were ceded in 1799 and 1805.

The first substantial Euro- and African-American settlement in the Roane County area began in the last decade of the 18th century, spurred, to a certain extent, by the completion of the Avery Trace from the eastern valley settlements to the Cumberland settlements around Nashville and by the construction of Fort Southwest Point at the mouth of the Clinch. By 1797, Francis Bailey could already note the "marks of civilized life" in the area as he passed along the trace on his way from Nashville (Williams 1928:427). Kingston, located on the river just above Southwest Point, was established in 1799 and two years later became the county seat of the newly formed Roane County.

Throughout the 19th century most of Roane County remained a relatively isolated and rural area of farms and woodlots. Relatively large farms were established along the fertile terraces of the Clinch; holdings in the narrow tributary valleys tended to be smaller. Large and small farms alike, however, were engaged primarily in the production of livestock, corn, tobacco, and, for a brief period in the early 19th century, cotton. Slaves were present on some of the larger establishments prior to the Civil War, but as in most of the Appalachian South, farm labor was provided primarily by the proprietor and his family. Most industries were farm-based (or based on farm produce), including grist mills, distilleries, sawmills, and tanyards. The exception was a narrow belt of industry which emerged in the western part of the county, primarily west of the Tennessee and Clinch along the Cumberland escarpment, at a fairly early date. Initial development in this area was prompted, before the end of the 18th century, by the discovery of iron ore deposits, and later in the 19th century, by the exploitation of nearby coalfields and timber resources. Located along the major river systems, near the intersection of major north-south, east-west roadways and subsequently along a major railway, these activities eventually gave rise to the towns of Rockwood and Harriman. Rockwood, in particular, became the focal point of the non-farm economy of the area. During the later 19th and early 20th centuries mining, timbering and the industries they supported became much more important economically and drew increasing numbers of local people away from farm employment (Johnson and Dennings 1984). As in the remainder of the upland South, the coming of the mines, mills and timber interests had as much impact on local economies as did the outcome of the Civil War in other parts of the region.

By the early 20th century the agrarian sector of the local economy was strongly in decline. Soils, particularly on the deforested valley slopes, had been markedly depleted and many of the farms had been subdivided to the point that they were no longer commercially viable. Farming continued, but primarily as a supplement to employment elsewhere. Outmigration during the early 20th century was pronounced and the rural population as a whole declined.

The onset of the Great Depression appears to have hit the area particularly hard; not only did many of the small industrial concerns (such as the Roane Iron Company) immediately go out of business or suspend operations, but there was no longer a viable farm economy to fall back on. By 1933 nearly 25 percent of the population of Roane County was on relief prompting, for a brief interval, a "back to the farm" trend as a way of cushioning industrial unemployment. According to Johnson and

Denning (1984:56), in the five years after 1932 the farm population of Roane County increased 47 percent and the number of operating farms increased 40 percent. Federal remediation programs of the 1930's, particularly the WPA and CCC, were important not only because they provided temporary jobs, but because they constructed needed schools and roads and did an immense amount of reforestation and erosion control work. The Tennessee Valley Authority, formed in 1933 to provide flood control and power generation, also served some of the same public and resource conservation functions. The construction of Norris Dam (1933-1936) and Watts Bar Dam (1939-1942) had a particularly strong impact on the economy and infrastructure of the area, with both projects flooding substantial amounts of Clinch River bottomland.

Despite some improvements in access and public infrastructure, the landscape of the project area in 1942 was still an overwhelmingly rural one, with scattered small farms and rural residences and a few small farming communities. In 1940, the rural population of Roane County totaled only about 17,300 persons, with an additional 10,500 urban residents living in Harriman, Rockwood, and Kingston (Johnson and Jackson 1981:45). Population appears to have been particularly low in the relatively isolated area north (west) of the Clinch.

In October, 1942, the United States government filed a "declaration of taking" for 59,000 acres in Anderson and Roane County and the rural character of the lower Clinch began to change forever. During the following six months, the entire population of Roane County between the Clinch River and the Poplar Creek Valley was removed and was replaced by a small army of administrators, contractors, construction workers and military personnel. Within another two years, these individuals had built the fifth largest city (by population) in the state and were in the process of completing one of the largest industrial facilities in the world. Unbeknown to most local residents, the area had become one of the three main operations centers for the Manhattan Project, the World War II attempt to devise and produce the world's first atomic bomb. The primary mission of the Clinton Engineer Works, as the Tennessee project area was known, was the production of fissionable uranium isotopes and plutonium.

Most of the pre-1942 buildings within the new reservation were demolished; a good number had neither electricity or plumbing and were considered generally unsuited for housing. About 181 of the more substantial farm residences and other buildings were retained for temporary residential use, but most of these were demolished shortly after the war (Carver and Slater 1994:25).

Several such structures were located in the community of Wheat, which fell within the K-25 gaseous diffusion site near Gallaher Ferry. Wheat, the largest of four rural communities displaced by the reservation, was large enough to be described as a "bustling town" and had, in addition to four churches, a high school, post office, store and Masonic Lodge. In the late 19th century, Wheat was also the site of Roane College/Poplar Creek Seminary. The settlement is said to have had its origins in the late 18th century, with the establishment of two gristmills on Poplar Creek. Only one building from the Wheat Community, the George Jones Baptist Church, survives.

Despite the construction of thousands of houses in the new city of Oak Ridge, housing for the peak population of 75,000 workers was in critically short supply during the war and trailer camps and districts of small pre-fabricated houses and "hutments" were established throughout the reservation.

Most of this housing was expected to last only for a few years at most and almost all outside Oak Ridge itself was abandoned and razed before 1950 (Carver and Slater 1994; Johnson and Dennings 1984; Johnson and Jackson 1981).

After the war Oak Ridge was administered by a civilian administration and no longer is included within the reservation. Subsequent development within the reservation has primarily been restricted to the original three plant sites (K-25, X-10 and Y-12), however, some additional support and subcontractor facilities have been added in adjacent areas. The reservation area still contains expansive tracts of undeveloped lands between the plant sites. A significant amount of new development also occurred in areas surrounding the reservation. By the mid-1950's an increasing number of residential structures had been added along the post-1940 alignment of Gallaher Road (SR 58) between SR 70 and the Oak Ridge reservation. Both residential and light commercial/industrial construction increased substantially in this section after the completion of I-40 in the early 1960's.

Previous Research

The first reported archaeological surveys in the lower Clinch River area were conducted by Cyrus Thomas, C. B. Moore and M. R. Harrington between 1885 and 1922, but it was not until 1941, with the construction of Watts Bar Dam, that the lower 28 miles of the Clinch River was systematically surveyed (*i.e.*, Nash 1941). Thomas, Moore, and Harrington, in particular, were specifically interested in prehistoric burial mounds. Although his survey was restricted entirely to the river terraces, Nash's efforts were more systematic and encompassing--although he was probably the first professional investigator to examine a portion of the project area, he noted no sites in the near vicinity.

Most subsequent investigations in the immediate area have taken place within the confines of the DOE Oak Ridge Reservation, including no fewer than 10 surveys and testing projects and detailed excavations at three prehistoric sites. A general survey of the Oak Ridge Reservation was conducted by Fielder (1974); most investigations have been focused on specific development sites. Fielder, *et al.* (1975) conducted a survey for a proposed Exxon Nuclear Facility site on the north side of the Clinch, beginning south of the Gallaher Bridge. McCullough (1981) conducted a systematic survey of the site for the proposed Tennessee Synfuels Plant, including a large area between Campbell Bend and SR 58 on the south side of the Clinch. An inventory of the K-25 plant site has recently been conducted by the Jacobs Environmental Restoration Team (JACOBS 1995). By far the most detailed investigations in the immediate area were conducted between 1972 and 1982 in the Clinch River Breeder Reactor Project area, located on the north side of the Clinch between river miles 14.5 and 18.6. Jolley (1982) and Schroedl (1990) provide useful descriptions of survey and testing work which eventually identified a total of 27 prehistoric sites. Schroedl (1990) summarizes the major prehistoric investigations in the CRBRP area, including the excavation of Early and Middle Woodland components [Exempted from Disclosure by Statute] at 40RE108 and excavation of a late Woodland Hamilton mound at 40RE124. The Synfuels, CRBRP, and K-25 work also included assessments of alluvial stratigraphy along the Clinch River [Exempted from Disclosure by Statute] which are discussed further, below.

Exempted from Disclosure by Statute - Withheld Under 10 CFR 2.390(a)(3)

A number of smaller compliance projects have been conducted in the reservation, although none were near the proposed SR 58-SR 95 project area. The two largest systematic survey projects, at the Synfuels Plant site and at the CRBRP plant site, because they encompass a relatively wide range of topographic variation, are probably most relevant to assessing prehistoric site distributions in the area. [

Exempted from Disclosure by Statute

Prehistoric sites were identified [Exempted from Disclosure by Statute] but are typically either lithic extraction locales or low-density artifact scatters which probably represent field camps and other short term activities (Jolley 1982; McCullough 1981). Small prehistoric artifact scatters have also been identified [Exempted from Disclosure by Statute] Fielder (1974:64), but, again, these do not appear to represent residential locales. The situation appears to be broadly the same as that described for the lower Little Tennessee River Valley by Davis (1990:260-261), who concludes that there is a functional dichotomy between the use of similarly defined riverine and upland zones which persists throughout the prehistoric occupation of the area.

Previous historical research in the area has been almost exclusively centered on the development of Oak Ridge facilities and documentary accounts of the farms and communities that they replaced. Pertinent resources include an excellent architectural/historical assessment by Carver and Slater (1994) and the historical account of early project development by Johnson and Jackson (1981). Archaeological assessments have been more limited, but historic sites were included in inventory level surveys in the general reservation area (Fielder 1974; Fielder *et al.*, 1977), at the Tennessee Synfuels Plant Site (McCullough 1981), at the Clinch River Breeder Reactor Site (Schroedl 1972 *et seq.*; 1974) and at the K-25 plant site (JACOBS 1995). Sites recorded during these surveys were almost exclusively the remains of 19th and early 20th century farmsteads and cemeteries, none located within the current project ROW. Three known cemeteries are located proximal to the project area: the [

Exempted from Disclosure by Statute

] All of these cemeteries are well marked and do not appear to extend into the proposed ROW area.

Despite the level of previous investigation, only three sites have been recorded in close proximity to the project area. All were originally recorded by Fielder (1974, 1975) and include 40RE134 (mixed prehistoric and 20th century historic components), [Exempted from Disclosure by Statute]

] 40RE135 (prehistoric), [Exempted from Disclosure by Statute]
and 40RE138 (prehistoric), [Exempted from Disclosure by Statute]
These sites are described below, as relevant.

National Register Listed or Eligible Sites

Only two sites adjacent to the proposed project area have been determined to be potentially eligible for or have been listed on the National Register, both within the DOE reservation. Broadly, elements of the K-25 plant have been determined to be eligible, but neither the proposed content or boundaries of a possible district have been defined (see TDOT correspondence in Appendix A). Generally, the K-25 site is contiguous with the present SR 58 right of way between Bear Creek Road and Blair Road. The Oak Ridge Turnpike Checking Station, two guard houses which flank either side of SR 95 within 30 meters of the project terminus east of Wisconsin Avenue, is currently listed. The boundary description for this site is a single rectangle which encloses both structures and which specifically includes a section of the SR 95 ROW. A third site, the National Register listed George Jones Memorial Church, is located on Wheat Road well outside (ca. 330 meters) the existing ROW.

SURVEY METHODOLOGY

Background Research

Prior to the field investigations a relatively intensive search for materials bearing on site locations was conducted. In addition to the primary local source materials cited above, the site and county files of the Tennessee Division of Archaeology were examined. Map resources were also examined, in particular the holdings of the USGS Map Repository at the University of Tennessee, Knoxville (i.e., the Cartographic Information Center), and the Special Collections section of the University of Tennessee Libraries.

Mapping of more than general utility consisted entirely of USGS 7.5' maps of the period 1935-1990, with those from the 1935-1955 period most helpful in assessing historic developments in the project area. The 1935 maps are planimetric only. Up until the 1960s, USGS maps showed no structures within major portions of the Oak Ridge Reservation which had not been in place prior to 1942. Contour changes are depicted in the areas occupied by the major plant sites, but the buildings themselves are absent.

Examination of the available USGS maps, including the 1935, 1942, 1953, and 1968 editions, suggested that the overall potential for encountering pre-1940 sites in the project area was relatively low. Although both the pre-1940 and modern roadways generally follow the linear valley floors, the modern roadway follows a completely different alignment in most areas (one exception being in the immediate vicinity of I-40). State Route 95 between the SR 58 interchange and Oak Ridge, for instance, intersects the older road system only in the outskirts of Oak Ridge (see figures 3 and 4). Although it was expected that the ROW could intersect an isolated structure locus at almost any point, based on this data a high rate of historic site encounter was not anticipated. A total of only five structural locales shown on the 1935 map appeared to fall within the right of way.

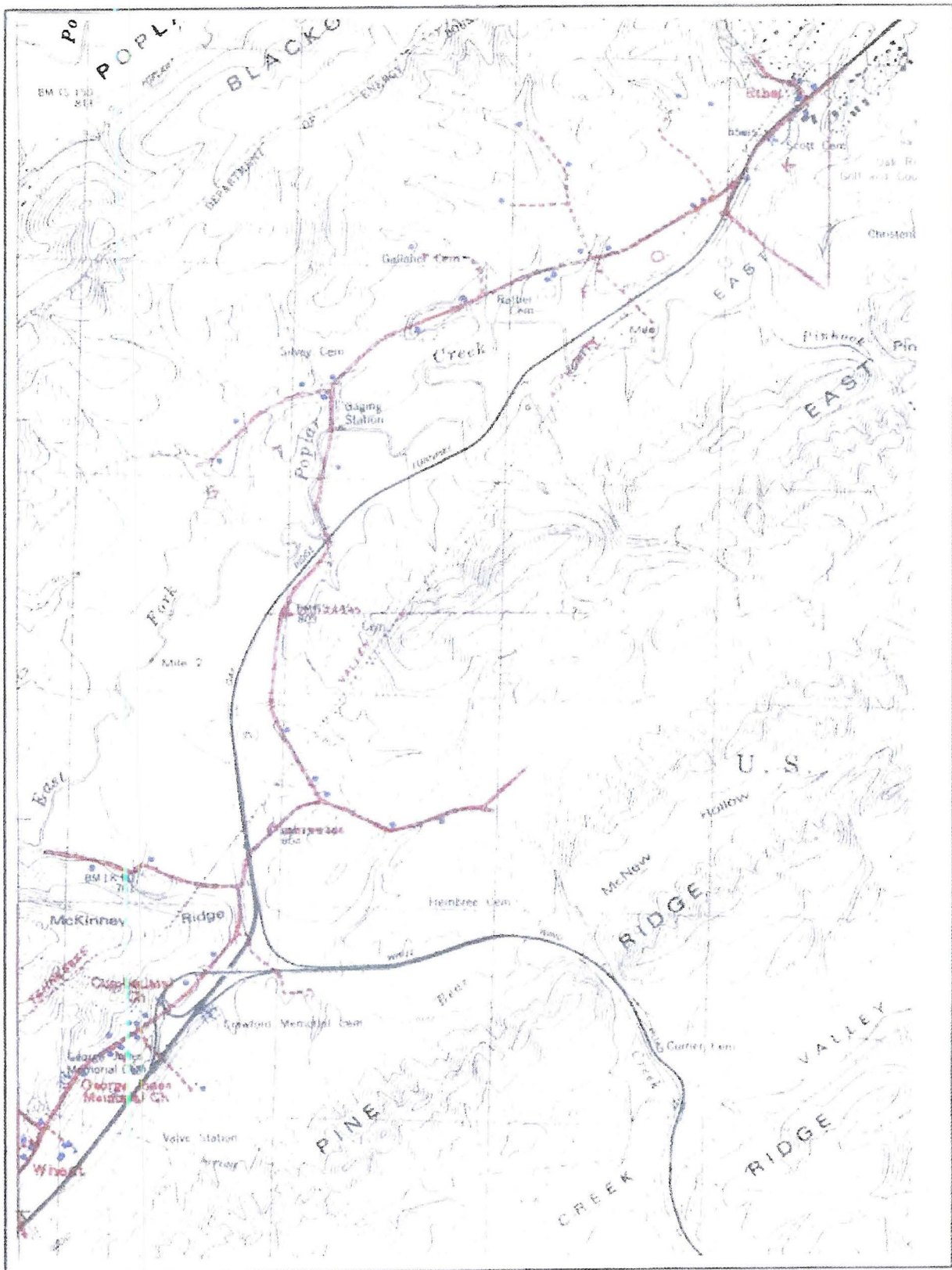


Figure 4. 1935 roadways (red) and structures (blue) in northern portion of project area.
Base map: 1968 USGS 7.5' Bethel Valley, Tn.

All previously identified site locations, and possible site loci (primarily those identified on the 1935 USGS maps) were replotted on the engineering plans provided by TDOT and on a set of current USGS maps for reference use in the field.

Field Investigations

Field investigations were relatively straightforward. Following a preliminary reconnaissance, the project ROW was divided into three general types of areas: 1.) areas with obvious and extensive landform modifications (e.g., major road cuts and other extensively graded areas, filled areas with residential or commercial structures), offering no potential for the discovery of intact cultural resources; 2) unmodified areas exhibiting high slope regimes (greater than 15 percent slope); 3) unmodified areas considered to be suitable for prehistoric or historic habitation or use (generally, areas of less than 15 percent slope). The last category was further divided into (3a) areas with good surface exposures (>35 percent of the landform surface exposed) which could be evaluated with pedestrian survey only, and (3b) areas which had either completely vegetated surfaces and/or in which there was some potential for site burial (through colluvial or alluvial deposition). These areas were delineated on project engineering maps provided by TDOT.

Defined in these terms, the composition of the project area varied widely between specific project segments. Overall, an estimated 35 percent of the total project ROW was assigned to the "destroyed" category, with an additional 10 percent falling into the "high slope" category. Approximately 85 percent of the remainder was partially or completely vegetated, either in pasture, in landscaped residential lots, or wooded. Only about 15 percent of the "low slope" area had consistently good surface exposure, most within the timber salvage areas on the Oak Ridge Reservation.

With the exception of surfaces judged to be completely destroyed, the entire project area was surveyed on foot, with additional details on soil and landform characteristics noted on the project maps. The ROW was typically walked in one or more linear transects, depending on the width of ROW. In general, this portion of the survey provided good coverage of all available surface exposures and was sufficient to identify all obtrusive, above-ground remains such as stone mounds, wells, building rubble, anomalous vegetation, etc., in more heavily vegetated portions of the project area.

Vegetated areas were subsequently shovel tested. The shovel testing procedure typically involved a single transect of units spaced at approximate 20 meter intervals.

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a few areas where the right of way was 40 meters or more in width on one side of the existing highway more than one transect was employed. Shovel testing was almost continuous along the wooded footslopes to the south of SR 95.

Exempted from Disclosure by Statute

A recently cut trench for fiber optic phoneline

Exempted from
Disclosure by
Statute

Oak Ridge) provided fair to excellent opportunities for surface examination on the north side of the highway in this same area, obviating much of the need for shovel testing on both sides of the road. Elsewhere in the project area, low slope landforms were less extensive and/or continuous, and the typical shovel test transect consisted of from two to five units.

Additional shovel tests were installed in identified site areas to enhance definition of site boundaries and/or acquire additional artifact samples. These tests were placed judgementally (to supplement surface survey) or were systematically arrayed around a positive shovel test in one of the original transects. In the latter case, additional units were typically installed at 10 meter intervals until some definition of the site boundaries (within the ROW) could be obtained.

The locations of all shovel tests were roughly plotted on a copy of the project engineering plans which accompanies this report.

Each shovel test consisted of a 30 cm round excavation, with the depth of the test generally determined by the nature of the landform under investigation. Unless otherwise noted, all tests were carried to subsolum levels. Excavated spoil was screened through 1/4" hardware cloth.

Site Recording

Site inventory forms were submitted to the Tennessee Division of Archaeology for all cultural loci encountered, with the exception of isolated artifacts in clearly disturbed contexts and historic artifacts from contexts which clearly appeared to represent roadside dumping activities. A number of historic period sites and or standing structures representing domestic habitation beginning in the period 1940-1950 were noted in the survey area. Although some of these sites are technically eligible for NRHP consideration (*i.e.*, because they are at least 50 years old), an arbitrary cut-off date of 1935, coincident with the first detailed mapping of the project area, was imposed. Site forms were submitted, however, for two non-domestic sites of similar age, both associated with early construction and/or use of the K-25 plant.

Artifact Processing and Curation

Very small samples of artifactual material were recovered/retained from sites in the project area. Artifact processing was limited to cleaning and rough tabulation. Artifacts, notes, photographs, and other documentary materials will be permanently curated by the Tennessee Division of Archaeology, 5103 Edmondson Pike, Nashville, Tennessee.

SURVEY RESULTS

Implementation and results of survey activity are outlined below for each project segment.

I. I-40 to Clinch River

From I-40 to within one kilometer of the Clinch River the SR 58 alignment follows a narrow valley between Pine Ridge and Chestnut Ridge. For the first two kilometers north of I-40 the existing highway closely parallels or overlies the early 20th century roadway through the valley. This is the most commercially developed portion of the project area, and land modifications within the existing

and proposed right-of-way have been particularly severe. Grading of lots for construction, stripping of topsoil for sale, and filling of lots adjacent to the roadside are commonplace. Survey activity in this section was primarily limited to pedestrian reconnaissance, with shovel testing only selectively employed.

Most of the remainder of the SR 58 alignment between I-40 and the Clinch River was established between 1946 and 1953 and is bordered with private residences generally under 50 years of age. Land modifications in this area have not been as extensive, but are pervasive to one degree or another in most sections of the ROW. A complete pedestrian reconnaissance of this area was conducted and shovel testing was employed systematically on unmodified landforms where the property owner's permission could be obtained. Except for three small areas (totaling about 175 linear meters of ROW) we were able to shovel test areas that we considered habitable. No evidence of prehistoric or historic activity was observed in these areas during the pedestrian reconnaissance. Although we cannot categorically rule out the presence of potentially eligible resources, given the degree of soil deflation and erosion characteristic of similar settings throughout the project area, we would consider this prospect unlikely. These sections have been marked on project plan maps returned to TDOT.

Within one kilometer of the Clinch River a new section of alignment was added in the 1970's, taking the highway from the old (ca. 1950) river crossing (at the foot of the valley) and crossing rugged terrain at the end of Pine Ridge to the new Gallaher Bridge site. This section of alignment abuts the western portion of the Department of Energy's reservation, previously surveyed (as part of the proposed Synfuels Project area) by McCullough (1981).

Only three structures identified on 1935 USGS planimetric mapping fell within the existing or proposed ROW in this section. One of these, a small house of probable 20th century age, is still standing at the northwest corner of SR 58 and Lawnville Road. A second, also of probable 20th century construction, was identified in archaeological context and recorded. The third, located near the I-40 interchange, appears to have been completely destroyed. Disturbed prehistoric materials were identified at three locations, with two areas subsequently assigned state site numbers.

Only two sites were recorded in this section of the project area (Figure 5):

Site No: 40RE226 (FN-1, FN-2)

Site Type: Open habitation/activity area; rural farmstead.

Cultural Affiliation: Early Archaic; Late 19th-20th century historic.

Site Area: 3000 square meters (minimum)

Site Coordinates:

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Description: The site area occupies the local crest, shoulder,

Exempted from Disclosure by Statute

[[
drainage divide]

Ex (Figure 5), essentially on the

Exempted from Disclosure by Statute

[Within the ROW area the site extends from the vicinity of
Exempted from Disclosure by Statute] southwest for approximately 150 meters. At least two components are

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Figure 5. Site locations, southern portions of project area. Large site numbers are sites within right-of-way. Base Map: USGS 7.5' Elverton, TN.

represented. The prehistoric component is represented by a low density, generalized scatter of lithic debris [Exempted from Disclosure by Statute]

[Exempted from Disclosure by Statute] The historic

component consists of a much broader scatter of domestic debris, [Exempted from Disclosure by Statute]

II

[Exempted from Disclosure by Statute]

All of the landform within the site area, including the proposed ROW, shows evidence of significant disturbance, with subsoil or shale regolith exposed in substantial portions of the site area. Much of this is apparently due to intentional stripping of topsoil from the lot (the site occupies a portion of a large lot being cleared for commercial redevelopment) and subsequent erosion. Almost all of the artifacts recovered were obtained from these disturbed, largely unvegetated areas. Comparisons with 1935 mapping indicate that the main road during this period probably also ran through the site area. Although this feature is no longer evident, it is likely that processes attendant on its construction, use and abandonment have added to the general level of disturbance within the proposed ROW area.

A transect of shovel tests (four tests at 10 meter intervals) was installed in what appeared to be the only portion of the site area retaining relatively undisturbed soils,

[Exempted from Disclosure by Statute] This was just outside the ROW, extending southward [Exempted from Disclosure by Statute]

[Exempted from Disclosure by Statute] (Figure 6). Soil profiles in this area exhibited 5-8 cm of a weakly developed A (proximal to the trees) or Ap horizon (sic, 7.5YR5/4) overlying an 8-12 cm thick CB (sic, 7.5YR5/4) exhibiting mineral concretions and staining. The CB grades into a C horizon (sic, 7.5YR5/6, 5/8) at approximately 13-20 cm bs. Only one prehistoric artifact was recovered in these tests (from the Ap horizon in ST 3), generally reflecting the low density distribution of prehistoric cultural material on the site.

A total of 22 prehistoric artifacts, including 1 projectile point/knife (PP/K) fragment, 1 biface fragment and 20 pieces of debitage, were recovered from surface collections or shovel tests in the site area. The PP/K fragment is the proximal portion of a small corner-notched biface and exhibits a straight, lightly ground base and resharpened, deeply serrate blade margins. This artifact can be generally associated with projectile points of the *Kirk Corner Notched Cluster* (e.g., Justice 1987:71-82), and is of probable Early Archaic age (ca. 10000-8000 BP).

The small recovered historic assemblage (23 artifacts from surface context), includes bottle glass, canning jar fragments, and ceramics, generally indicative of domestic functions. Sixteen of 19 ceramic fragments can be classified as white earthenwares, with undecorated, mold decorated, and polychrome hand-painted (N=2) examples represented. Three additional ceramic fragments are from brown slip-glazed (i.e., *Albany* slipped) or brown and white slipped stoneware crocks and jugs. A single fragment from an amber "blob-top" bottle provides the best evidence for late 19th century activity on the site; the remainder of the materials recovered could have been deposited at almost any point in the late 19th to mid-20th centuries.

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Figure 6. Site 40RE226, showing site features, location of shovel tests.

Recent USGS mapping indicates that there were three structures on the site as late as 1968 (locations plotted in Figure 6). Examination of earlier USGS mapping indicates that all of these structures probably post-date 1935. Although earlier historic occupation/use of the site area is probable, no structural features or any other evidence bearing on component definition was observed.

Recommendation: Both the prehistoric and historic components at this site have been severely disturbed. In general, the potential for encountering intact remains relating to either component is considered low for the site area as a whole and negligible for the sloping portion of the site included in the ROW. Given the lack of contextual integrity it is our opinion that the site is not eligible for the National Register and no further archaeological investigations are recommended.

Site No: 40RE227 (FN-2)

Site Type: Open habitation/activity area; Rural domestic

Cultural Affiliation: Unknown prehistoric; early-mid 20th century

Site Area: 2400 square meters

Site Coordinates: [

] Exempted from Disclosure by Statute

This location was originally identified as the locus of a structure plotted on the 1935 USGS planimetric map. [

Exempted from Disclosure by Statute

] [

Exempted from Disclosure by Statute

] The site is

] Exempted from Disclosure by Statute

marked by [

concentration of structural and domestic debris which appears to mark the former structure locus. The site area was vegetated in grass and weeds and surface visibility was generally poor. Seven shovel tests were installed in the site area at approximate 10-12 meter intervals on either side of the structure area, extending on the northeast to a portion of the lot which has apparently been stripped for fill. Historic cultural materials were recovered from STs 1-5, and ST 7. Two prehistoric artifacts were also recovered from the Ap horizon in ST 2.

The historic component almost certainly represents an early 20th century occupation. Building materials, relatively abundant on the site, included cinder block and cement block fragments, fragments of asbestos siding shingles, asphalt roofing and wire nails, all items which can be specifically associated with 20th century construction, as well as fragments of brick and window glass. Based on the building materials a construction date sometime between 1917 and 1930 would be anticipated. Domestic artifacts (N=12) were more poorly represented. A total of three fragments of undecorated whiteware, four canning jar fragments, 1 milk glass canning lid liner, and four pieces of bottle glass were recovered from six of the seven shovel tests. Although the sample size is too small to help establish an occupation span, these items would be consistent with an early to mid-20th century occupation.

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

Figure 7. Site 40RE227, showing site features and shovel test locations.

Based on map information, the site was abandoned and the structure razed prior to 1953. This very likely resulted from the construction of [Exempted from Disclosure by Statute] when the roadway was moved approximately 10 meters northeast (i.e., closer to the house) of its original location in this area.

The prehistoric assemblage consists of one bifacial thinning flake and one piece of blocky debris.

Recommendations: The historic component at 40RE227 appears to represent a domestic occupation ca. 1920-1950. Although demonstrably 50 years old, the historic component at this site does not otherwise appear to be eligible for inclusion in the National Register and no further work is recommended. The prehistoric component at the site is poorly represented. The two flakes recovered may represent short-term use of the site area, or they may be remnants of a more substantial occupation destroyed by multiple episodes of [Exempted from Disclosure by Statute]. Based on its representation within the ROW, this component is not considered eligible for the National Register and no further investigations are recommended.

II. Clinch River Alluvial Terraces

Alluvial terraces are located on either side of the Clinch River[

Exempted from Disclosure by Statute

1. On the south side [Exempted from Disclosure by Statute] the terrace is slightly lower and narrower, and has been partially submerged by the tailwaters of Watts Bar Lake. The terrace areas on the south side of the river are wooded; the entire terrace on the north side of the river has been cleared within the past 30 years, but a significant portion has been replanted in pine. The remainder, basically a wide clearing for utility lines, consists of fallow fields. As a consequence, the topography of the terrace is largely obscured. On the north side of the river the alluvial deposits are relatively flat and almost featureless, a low (<30 cm) rise along the streamward third of the terrace providing the primary relief. The terrace on the south side of the river is relieved by a prominent tributary stream/overflow channel which is now inundated by Watts Bar Lake.

Two prehistoric sites have been previously recorded [Exempted from Disclosure by Statute] proximal to the [Exempted from Disclosure by Statute]

1. Site 40RE135, originally reported by Fielder (1974:64), consisted of a single flake, [Exempted from Disclosure by Statute] The plotted location of this site, [Exempted from Disclosure by Statute], does not match the verbal description provided in the report, i.e., [Exempted from Disclosure by Statute]

2. One of these locations (it is unclear which) was reexamined during a recent cultural resources inventory of the K-25 plant (JACOBS 1994:6/7). No additional cultural materials were recovered during this investigation.

The second site (40RE138), also reported by Fielder (1975), was also identified [Exempted from Disclosure by Statute] and described as an approximate 500-meter-long scatter of lithic and ceramic artifacts representing occupation throughout the prehistoric period. The plot for this site (which, again, does

not match the verbal description) places its westernmost edge [Exempted from Disclosure by Statute]
.] This site was also revisited by the Jacobs Engineering survey team in 1994 (JACOBS 1994:6/8) but no additional information on the site was acquired. The survey crew did, however, take a core sample from the terrace sediments at this location, discussed further below.

The construction plans provided by TDOT indicate that the new construction will take place within the existing ROW throughout this section of the project. Both sides of the river were examined, with particular attention being paid to the location of TDOT right-of-way boundary markers.

The existing [Exempted from Disclosure by Statute] (built on a new alignment c. 1960's) crosses the alluvial terraces of the Clinch River on earthen berms. The berm on the south side of the river is particularly high and wide, occupying all of the existing ROW throughout its length. Bank exposures were examined at this location, however, given that all unburied/uninundated sections of the terrace fell outside the ROW, no subsurface testing was conducted.

On the north side of the river the terrace is slightly higher and the berm somewhat lower [Exempted from Disclosure by Statute]
On the west side [Exempted from Disclosure by Statute] the western edge of the ROW is coincident with a wide (ca. 10 meters) ditch cut along the edge of the berm, apparently to improve drainage. The channel is at least 2.5 meters in depth (below the level of the lake) at the south margin of the terrace and is filled with water for most of its length. On the eastern side of the bridge a secondary berm [Exempted from Disclosure by Statute]
[Exempted from Disclosure by Statute] takes up the ROW on the northern 1/3 of the terrace. The ROW on the southern section of terrace, however, is located from 5-10 meters east of the base of the berm. Part of the intervening area, as on the opposite side of the berm, is taken up by a drainage ditch, but a much smaller and shallower feature (ca. 2.5 meters wide by 1.0 meters deep).

[Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)]

In addition to examining the cut-banks along the lake shore (both east and west of the bridge), the drainage ditch to the east of the berm was used as the basis for a series of eight profile cuts, spaced at approximate 15-20 intervals (Figure 9). For each, the slumping margin of the ditch was cut back to form a vertical profile at least 50 cm wide and from 60-90 cm in depth. Spoil from this operation was trowel sorted for artifacts.

All of the profiles exhibited similar pedological characteristics, with only minor differences in depositional thickness noted. A representative profile, from ST 5, is shown in Figure 10 and described in the accompanying table. In general, there appears to have been very little recent deposition at this location, all inclusive in an Ap horizon approximately 30 cm in thickness. Argillic (Bt) horizons are encountered immediately below (30 to 50 cm below the present surface); below 50 cm a hard fragipan layer occurs which extends to the base of the profiles examined (*i.e.*, up to 90 cm below surface). At least two inferences can be drawn from the depositional sequence: 1) relatively old soils (mid-Holocene or older) are present within a meter of the landform surface; 2) a portion of the depositional sequence is probably missing (*i.e.*, above and/or below the Bt horizon), the implication being that the terrace deposits have been truncated at some point in time.

These characteristics, generally suggestive of low rates of deposition and/or periodic cycles of downcutting, do not lead us to expect deeply buried cultural deposits in this section of the floodplain. The Jacobs ER team appears to have reached a similar conclusion in their assessment of cut bank profiles in the vicinity of 40RE135 (*i.e.*, JACOBS 1994:6/7), concluding that the exposed strata were of probable Pleistocene or early Holocene age.

Based on previous investigations in this section of the lower Clinch, it appears that Holocene deposits, on the whole, are relatively thin or absent. Several hundred meters [Exempted from Disclosure by Statute], in the vicinity of 40RE138, the Jacobs ER team examined a deeper profile (obtained by coring), documenting a single sequence of undisturbed deposits in the upper [Exempted from Disclosure by Statute]. No paleosols were noted at this location and they speculated that all cultural deposits were likely contained in the upper [Exempted from Disclosure by Statute] (JACOBS 1994 6/9). At 40RE86, [Exempted from Disclosure by Statute]

[Exempted from Disclosure by Statute], Lenhardt (1981:C6-7) describes a 240 cm sequence of intensively weathered alluvium, including claypan deposits, assigning all of it a pre-Holocene Age. Buried Holocene surfaces are clearly present within this section of the valley, but it appears that most are relatively shallow or occur within particularly sheltered areas. Backhoe testing at 40RE165, [Exempted from Disclosure by Statute]

[Exempted from Disclosure by Statute], for example, documented an alluvial deposit containing an intact Early Archaic (Kirk) horizon at approximately one meter below local ground surface (Jolley 1982 :50-58). These were underlain by a thick deposit of "compact clay", which may be analogous to the claypan deposits at 40RE86. At 40RE90, [Exempted from Disclosure by Statute]

[Exempted from Disclosure by Statute] intact Holocene sediments were present, again, overlying a truncated sequence of deeply weathered soils (Lenhardt 1981:C8-10).

At 40RE108, [Exempted from Disclosure by Statute] cultural deposits were encountered to a depth of [Exempted from Disclosure by Statute]. As described by Schroedl (1990:24-26), however, these were secondary deposits of shell and other refuse [Exempted from Disclosure by Statute]

[Exempted from Disclosure by Statute] Occupational horizons [Exempted from Disclosure by Statute] were preserved in only one small area of the site.

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

Figure 9. Project area at Clinch River crossing, showing previously recorded sites, location of profile cuts. Site boundary, locations are based on site record plots.



Figure 10. Representative profile, [Exempted from Disclosure by Statute]
[Exempted from Disclosure by Statute]

Ap	0-30cm	7.5YR5/6 silt loam, historic artifacts abundant sharp smooth boundary;
Bt	30-50cm	7.5YR5/4 silt loam, mottled with 7.5YR5/8, weak subangular blocky structure, friable, abrupt wavy (?) boundary;
2Bx	50-90cm	7.5YR5/6 silt clay loam, mottled with frequent 1-2cm 7.5YR6/6 or lighter, strong blocky structure, hard/brittle.

No prehistoric artifacts were recovered from any of the profile cuts. Only historic materials such as rivets and wire cable, artifacts clearly related to bridge construction, were observed, all inclusive in the Ap horizon.

If the proposed construction in the bridge area is confined to the existing state right-of-way it does not appear that significant cultural resources will be involved. Prehistoric cultural materials were not observed in the topmost meter of the remaining sediments [Exempted from Disclosure by Statute]. No evidence of more deeply buried cultural deposits has been observed in previous "low pool" surveys of the shoreline in the bridge area and pedological observations suggest that these are unlikely. Further investigations of deeper deposits, employing heavy equipment, would be necessary to completely rule out this potential, but given the small size of the area involved and the absence of any evidence to the contrary we would not recommend such investigations at this time.

III. Clinch River to Vicinity of Wisconsin Avenue, Oak Ridge

With very minor exceptions, the SR58/95 alignment in this section post-dates the early 1940's. The original roadways in this area left Gallaher Ferry (north of the current bridge locus in the vicinity of the K-25 power plant) and headed northeast through East Fork Valley or turned southeast around the end of Pine Mountain into the Grassy Fork/Bear Creek Valley. Bear Creek Road in the vicinity of Gallaher Bridge essentially follows the old ferry road along the terrace at the south end of Pine Mountain. After WWII, the first Gallaher Bridge crossed the Clinch at the foot of the Bear Creek Valley, roughly in the vicinity of the gauging station. The current bridge alignment takes the highway through a series of cuts on the southwestern slopes of Pine Mountain and directly in front of the K-25 facility.

Portions of the K-25 facility have been determined to be eligible for National Register listing, however, all extant structures are located well outside the SR 58 ROW. Modifications to the landscape in and around K-25 have been extensive and roadway construction in this area has also involved a considerable amount of cutting and filling within the ROW (Figure 11). Outside of the standing K-25 structures, we were aware of only five sites of possible interest in the plant area, none of which have TDOA site record numbers. The first is the [Exempted from Disclosure by Statute

[This site is comfortably outside the proposed ROW and was not recorded. Within the same area, but encompassing [Exempted from Disclosure by Statute

[a housing facility for K-25 workers which existed from 1943 until shortly after the war. Although the camp area would have extended into the highway ROW in this area, no general site number was assigned. One group of features possibly associated with the camp was identified in the field and recorded separately, however (see 40RE233, below). The mapped locations of three pre-1942 structures also fell within the [Exempted from Disclosure by Statute] these sites were apparently completely destroyed during K-25 site preparation or previous road construction.

In the vicinity of [Exempted from Disclosure by Statute] is tangent to the pre-1942 community of Wheat, one of four rural settlements moved from the Oak Ridge Reservation in the winter of 1942-43. Timber was being salvaged over a large portion of this area, [Exempted from Disclosure by Statute], providing ample opportunities for site identification (Figure 12). Although several former structure locations were observed on [Exempted from Disclosure by Statute]].

Immediately to the west of Wheat, SR 58 joins SR 95 (White Wing Road) in a large interchange loop. SR 95 turns northward through a water gap in East Fork Ridge and then northeast into the valley of East Fork Poplar Creek, largely following the margin of the valley floor. The right-of-way in this section is almost entirely wooded. With the exception of several large tracts which had recently been logged and a disturbed phone line ROW north of the road, surface visibility throughout

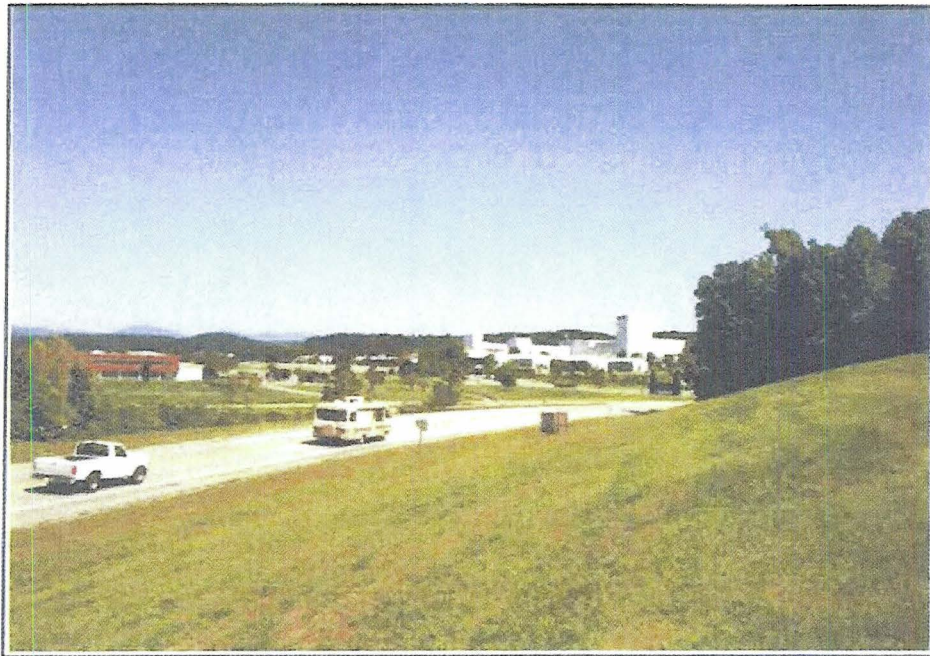


Figure 11. Portion of K-25 Plant site as seen from visitors center on SR 58. View north-northwest.



Figure 12. Site of portion of Wheat Community, SR 58 in background, view east.

the area was poor. Further, as the valley floor is relatively flat, few obvious cut or fill areas were present within the ROW. Consequently, shovel testing in this section was extensive.

The road makes only one crossing of the modern creek channel; a cut-off channel formed during road construction was identified in a second area. Where they occur, the creek terraces are generally narrow (5-15 meters), low, and poorly suited for habitation. Shovel testing on either side of the SR 95/ East Poplar Creek crossing identified deposits of alluvial silts in excess of 55 cm., but no cultural materials were recovered. Small prehistoric sites were [Exempted from Disclosure by Statute] however.

East of the creek the alignment crosses predominantly private property, with the proposed ROW expansion taking in portions of a large subdivision (*i.e.*, Southwood, presently under construction) between Poplar Creek and Scott Cemetery. Landform modifications on either side of the highway are extensive in this area. The project ends just east of Wisconsin Avenue, within 40 meters of the National Register listed Oak Ridge turnpike guardhouses (Oak Ridge Turnpike Checking Station), located on either side of the existing highway.

A [Exempted from Disclosure by Statute] of the project area (figures 5 and 13):

Site No: 40RE233 (FN-10)

Site Type: Industrial operations support facility

Cultural Affiliation: mid-20th century

Site Area: 6.3 ha. (estimated total area)

Site Coordinates: [Exempted from Disclosure by Statute]

Description: The site area occupies a series of ridgelines [Exempted from Disclosure by Statute] and consists of discontinuous clusters of structural remains along an old road bed. This road apparently left SR 95 or its predecessor [Exempted from Disclosure by Statute] and continued across the ridgelines to the south, [Exempted from Disclosure by Statute] With the exception of cleared sections immediately adjacent to SR 95 this is wooded terrain, with very little surface visibility.

As defined the site includes six poured concrete foundations, the probable remains of at least two similar foundations, and associated scatters or dumps of building debris and portable artifacts. Additional, unidentified, structural remains may be present in the general area. Figure 14 provides preliminary mapping for the site area. The foundations observed are almost identical, a poured concrete slab floor and low perimeter sill which is provided with attachment bolts for a frame superstructure. Each of the intact examples measures about 8 meters (24 feet) on a side. In at least one case the foundation appears to have been leveled on a base of rock rubble, however, most appear to have been situated to take advantage of relatively level ground. As identified in Figure 14, features 3 and 8 are probable structure locations defined on the basis of concentrations of displaced foundation and other building elements; Feature 1 appears to be only partially intact, with part of the foundation crumbling into the adjacent swale to the south.

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

**Figure 13. Site locations, northern project area. Large site numbers are within ROW.
Base Map: USGS 7.5' Bethel Valley, TN.**

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

Figure 14. Site 40RE233, showing structure loci and shovel tests. Solid lines are intact foundations; dashed lines represent scattered or fragmentary elements.

At least five of the eight known features fall within the proposed ROW area and all five are likely to be directly affected by the proposed construction.

Associated debris and portable artifact scatters suggest that these buildings were occupied, rather than used as storehouses for equipment or supplies. Almost all of the structures appear to have been equipped with small brick flues for use with stoves or furnaces. Based on remnants of piping, plumbing, and electrical fixtures, at least some of these structures were provided with both water and electrical service. Although structural and other debris is present across the site area, the swale in between the two primary clusters of structures, in particular, is also littered with food containers (tin cans, condiment bottles, etc.) and other "dump" debris. Some aspects of the assemblage, however, such as a urinal, as well as the small size of the structures themselves, suggest that they were intended for something other than single-family residential usage.

The structures are absent from 1935 USGS mapping and, based on the materials used and artifacts encountered, almost certainly date to the period of early Oak Ridge operations. The foundations, in particular, appear to be comparable to those of other small structures built by the government during the period 1942-1950. According to information received from James Rogers, Environmental Compliance Officer at K-25, the foundations are consistent with what are termed "FERCLEV" structures, after a government subcontractor who built some of the early housing and other structures in the K-25 operations area. Site function is, however, uncertain. According to one of Mr. Rogers' informants the structures at this location were most likely construction offices or small shops rather than residential units, most of which are known to have been located elsewhere around the plant complex. In the absence of any evidence to the contrary, this appears to be a reasonable hypothesis. (Mr. Rogers' memoranda on this subject are included in Appendix A.)

A second possibility is suggested by the site's location at the southern extremity of the J. A. Jones Trailer Camp. As noted above, this camp (also known as the "Ridgetop" camp), occupied [Exempted from Disclosure by Statute] facing K-25 from 1943 until at least 1947 and 40RE233 could represent camp administrative offices, stores, or other facilities. Based on comments in Johnson and Jackson (1981) it appears that the individual trailers in these camps were not equipped with running water or sewerage. As both of these must have been made available close by, it would appear at least plausible that the structural remains at 40RE233 could represent facilities for bathing, doing laundry, etc. Proximity to the trailer camp would certainly account for the deposits of domestic refuse left on the hill slopes, however, the specifics of camp layout are unknown and we have no specific documentary or informant information which otherwise supports this interpretation.

Site 40RE233 may have been previously inventoried during a K-25 site building survey conducted by a Jacobs Engineering team. The draft report (May 1995) of this survey was not available for inspection.

Recommendations: Based on field observations and information received from Oak Ridge informants, we believe that 40RE233 can be securely associated with the early stages of construction and/or operations at the K-25 facility. The structural remains at this site appear most likely to represent offices for one of the construction subcontractors or (possibly) support facilities for one of the trailer camps established for early Oak Ridge workers. In either case they probably date to the period of Clinton Engineer Works operations. No specific information can be brought to bear on the abandonment of these buildings at this time, but they appear to have been razed prior to 1960.

Although portions of the site area appear to be relatively well preserved, given the postulated function(s) of the structures we can think of few substantive research questions that might be addressed through continued archaeological investigation at the site. Consequently we would not, at this time, consider it eligible under Criterion D. The site does, however, appear to meet the "50 year" criterion and may be otherwise eligible for National Register inclusion under a broad construction of Criterion A, given its apparent association with a significant historical place and event (*i.e.*, development of the Manhattan Project's Oak Ridge operations). We would recommend that this potential be explored by TDOT in consultation with appropriate K-25 and Department of Energy cultural resources personnel.

Site No: 40RE232 (FN-9)

Site Type: Industrial operations support facility

Cultural Affiliation: mid-20th century

Site Area: 4900 square meters (estimate, arbitrary)

Site Coordinates: [

Exempted from Disclosure by Statute

]

Description: This site was originally identified on the basis of a K-25 sign [

Exempted from Disclosure by Statute

] the

locus of an [

Exempted from Disclosure by Statute

] As noted below, K-25 resource

managers have identified this area as the general locus of at least three structures and related facilities, however, site boundary definition has proven difficult. Additional ROW is to be acquired within 50 meters of the sign, but it is unclear at this time whether any of the structures actually stood within the proposed state ROW. As plotted, the site boundary encompasses a largely arbitrary area around the sign, [

Exempted from Disclosure by Statute

II

Exempted from Disclosure by Statute

.] The site area defined includes an area of footslope and swale covered with grass and scattered clumps of trees and shrubs [

Exempted from Disclosure by Statute

[Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)]

No obtrusive structural remains were noted during a pedestrian survey in this area. Due to the posted notice concerning potential "surface and subsurface contamination", no intrusive measures for site discovery were employed.

Most of the information available for this site was compiled in conjunction with its definition as a Solid Waste Management Unit. According to information received from James Rogers, Environmental Compliance Officer for K-25, (provided in its entirety in Appendix A), an existing farmhouse at this site was converted to a fire hall in 1944 and served in that capacity until 1951. It was one of five firehouses in the K-25 area operated by the City of Oak Ridge in the mid-late 1940s. A fuel station and garage were also located on the site from 1944-1947. Waste oil and various waste solvents were burned in an unlined pit (approx. dimensions 20x25x15 ft.) on the site until 1951, when the pit was filled. Open burning of contaminated oil took place "on the concrete pads of the three buildings" (an apparent reference to use of the slab foundations of razed structures, presumably including the fuel station, garage and abandoned firehouse) until 1960.

It appears likely that the "swale area" immediately behind the warning sign is the filled in burn pit, however, this has not been confirmed. The locations of other site features, as noted above, are not presently known.

Recommendations: The Department of Energy and its Oak Ridge contractors are in the best position to resolve any questions regarding the identities and specific locations of structures at this site. We have asked them to provide any additional information that they

can and will forward any communications received to the client and to the TDOT Environmental Planning Office.

For obvious reasons we are not, at this time, in a position to make a definitive assessment of the National Register eligibility of this site. From an archaeological standpoint, the remains of the pre-1942 farmhouse occupation would conceivably be of most interest. It is likely, however, that the extensive post-1942 modifications to the site would have had an adverse impact on the contextual integrity of any earlier archaeological component. Probable contamination with toxic waste materials would probably militate against the recovery of any archaeological materials unless this component was found to have truly exceptional qualities (*i.e.*, age or historical associations). There are no indications at this time that this is the case. Based on the absence of any structures at this location on the 1935 USGS 7.5' planimetric mapping, it appears likely that the farmhouse on the site was constructed in the mid-late 1930s.

The post-1943 remains of a firehouse, garage, or fuel station, whatever their historical associations, would likely not be considered significant archaeological resources under Criterion D. It is possible, however, that the locus of a building or buildings connected with the early years of K-25 operations could be considered eligible under Criterion A (most logically, within the context of a thematic or district nomination). This possibility should be explored in consultation with appropriate Department of Energy or K-25 cultural resource planning personnel. We would also recommend, particularly given the presence of potentially hazardous waste at this location, that the client and/or the TDOT Environmental Planning Office establish direct contact with K-25 environmental compliance personnel with the objective of firmly establishing the locations and extent of the structural remains/contaminated areas identified above with respect to the proposed ROW.

Site No: 40RE231 (FN-8)

Site Type: Rural domestic

Cultural Affiliation: mid-20th century

Site Area: 900 square meters (estimated)

Site Coordinates: [Exempted from Disclosure by Statute]

Description: [Exempted from Disclosure by Statute] The site area was defined on the basis of surface survey and encompasses a cluster of yucca plants and a small adjacent bulldozer pile which includes structural materials, primarily used brick, brick rubble, and mortar. [Exempted from Disclosure by Statute]

[No intact building foundation or associated features were identified. Shovel testing for purposes of prehistoric site discovery was conducted on the crest of the landform, however, no attempt was made to further define the historic component at the site.

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

Figure 16. Site 40RE231, general location. Dashed structure locus derived from 1935 plot.

Although no portable artifacts were recovered, the observed remains are consistent with those of a domestic residence and fall at the plotted location of a building shown on the 1935 7.5' USGS planimetric mapping. [Exempted from Disclosure by Statute]

]]

Exempted from Disclosure by Statute

] The old roadbed is not discernible in the vicinity of the site.

Bricks observed on the site are modern, machine made artifacts, most likely of 20th century manufacture. According to Department of Energy contacts (Peter Souza, personal communication, 9-5-95) the site could fall into one of three separate 1942 property holdings, one belonging to the Cumberland Church and the others to private individuals [Exempted from Disclosure by Statute]

] No attempt was made to securely identify the past owners, but it should still be possible to locate an informant who was familiar with the structure. The site has not been previously recorded in Oak Ridge operations area surveys.

Recommendations: Although the temporal and functional associations of this site are not securely established, it appears likely that it represents a 20th century domestic habitation. It appears to have survived until government purchase of the area in 1942 and was probably razed sometime between 1943 and 1950 (some of the existing farmhouses in the government reservation were apparently used for housing for a short period after 1942, but most of these were torn down after the war).

A significant amount of disturbance has apparently occurred in the site area, however, given the current level of archaeological definition we believe the site should be considered a potentially eligible resource, pending further evaluation. The site should probably be considered an outlier of the Wheat Community, one of several rural settlements displaced by the Manhattan Project. Other components of this community are currently being recorded and they are apparently being given some consideration as an archaeological resource in Oak Ridge operations cultural resource management planning. It is possible that site 40RE231 could be considered an archaeologically significant resource within the context of research designs developed around some aspect of community life or historical development.

Although the site area falls within the [Exempted from Disclosure by Statute] it is insulated from any further development and should not be adversely affected by currently proposed construction activity. Consequently, no further evaluation of the site is recommended at this time. The site should be reevaluated within the context of research and management concerns at such time as future impacts are anticipated.

Site No: 40RE230 (FN-7)

Site Type: Open habitation/activity area

Cultural Affiliation: Unknown prehistoric

Site Area: 1500 square meters

Site Coordinates: [

] Exempted from Disclosure by Statute

Site 40RE230[

Exempted from Disclosure by Statute

] The defined site area encompasses a linear 100 meters of

[

Exempted from Disclosure by Statute

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Disclosure by
Statute

[Cultural material was not observed in shovel tests and exposures [Exempted from Disclosure by Statute], where much of the right-of-way is occupied by a deeply eroded old road bed and higher slope areas at the margins of the uplands to the south. It is likely that the site does extend northward [Exempted from Disclosure by Statute] across the relatively level intervening landforms, but no systematic attempt was made to fix site boundaries in this direction.

The existing and proposed ROW on the north side of the road is narrow and is almost completely taken up by a drainage ditch and a phone line trench which parallels the highway. The site was initially identified on the basis of sporadic lithic debris observed in spoil [Exempted from Disclosure by Statute] with a total of five artifacts recovered over a 100 meter long stretch. To provide more systematic coverage, ten shovel tests were installed along a 120 meter transect encompassing this roughly defined site area. The shovel tests were located just outside the existing ROW in order to avoid the disturbance left by the phone trench, in an area which had recently been logged as part of the pine beetle control program. As was anticipated from the [Exempted from Disclosure by Statute] spoil, which was full of fractured chert, clay and other regolithic materials, soils at this location are non-existent or very thin. A typical profile exhibited an Ap horizon 27 cm in depth consisting almost entirely of recently disturbed subsoil (sic, 7.5YR5/6, mottled 7.5YR4/3) overlying an undisturbed C horizon (c, 5YR5/6, 5/8). A single lithic artifact was recovered from the shovel tests (from ST 6).

The total collection from the site consists of one non-diagnostic projectile point fragment and five pieces of debitage, primarily bifacial thinning flakes and flake fragments.

Recommendations: Site 40RE230 appears to be a very low density artifact scatter confined to disturbed contexts. In terms of setting, artifact density, and (as far as can be assessed) artifactual content, the site is broadly similar to three other sites in the immediate area (see note under 40RE228, below). The portion of the site within the state right of way is clearly ineligible for NRHP inclusion. Adjacent areas to the north should, however, be reevaluated if additional right of way is acquired in this direction.

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

Figure 17. Sites 40RE228 and 40RE230, SR 95 at [Exempted from Disclosure by Statute]

Site No: 40RE228 (FN-5)

Site Type: Open habitation/activity area

Cultural Affiliation: Unknown prehistoric

Site Area: 800 square meters

Site Coordinates: [

] Exempted from Disclosure by Statute

Description: This small site is located on a relatively level landform, [

] Exempted from Disclosure by Statute
:] A relatively

intact portion of the site is located in a wooded area [

] Exempted from Disclosure by Statute

] The site extends at least 40-50 meters to the south [

] Exempted from Disclosure by Statute

] (Figure 17). The site was initially identified in a shovel test transect (20 meter intervals) and definition was improved by adding additional tests at 10 meter intervals [

] Exempted from Disclosure by Statute

] Definition of the site outside the right-of-way, based on general surface recovery from surface exposures in disturbed areas, is relatively poor.

From 1-6 prehistoric artifacts were recovered from four of the shovel tests within the ROW (STs "00", W1, S1, S2). Soils are generally thin within the ROW and appear to have been previously disturbed, probably as a result of logging or agriculture. All artifacts were recovered from Ap context. A typical profile, from ST "S1", shows 20-24 cm A/Ap (sil, 7.5YR4/2, 4/3; mottled 7.5YR5/6) overlying a culturally sterile CB or C horizon (sic, 7.5YR5/6). Units nearer the road (i.e., ST "N1") exhibit more extensive disturbance, with churned subsoils present at ground surface.

A total of 22 prehistoric artifacts was recovered from shovel test (N=12) and surface (N=10) context. The shovel test assemblage consists entirely of small bifacial thinning flakes and flake fragments. A crude biface fragment and a core fragment were identified in the surface materials recovered from outside the ROW. No temporally diagnostic artifacts were recovered.

Recommendations: Along with 40RE230, 40RE229 [

] Exempted from Disclosure by Statute

] and 40RE134 (recorded by Fielder 1974:64), 40RE228 appears to be one of several small sites [

] Exempted from Disclosure by Statute

] All appear to be relatively low density artifact scatters. Site 40RE134, collected under optimal conditions, has the largest recovered assemblage (54 artifacts) and is clearly multi-component, with (based on an examination of photographs) Early Archaic, Middle or Late Archaic, and possibly Woodland period occupations represented. At least one Terminal Archaic/Early Woodland occupation appears to be represented at 40RE229.

Given generally low artifact densities, lack of component distinctiveness, apparent absence of intact artifact bearing soil horizons, and low probability of encountering intact cultural features, 40RE228 has an extremely limited potential for additional

archeological study. It does not meet criteria for inclusion in the National Register and no further evaluation of the site is recommended.

SUMMARY AND CONCLUSIONS

A total of seven archaeological sites, involving four prehistoric components of undetermined cultural affiliation and five historic components dating to the late 19th or early-mid 20th centuries, were identified within existing and proposed state right of ways.

Prehistoric components were recorded at sites 40RE226, 40RE227, 40RE228, and 40RE230. These are apparently small sites with very low artifact densities, relatively typical of sites previously recorded [Exempted from Disclosure by Statute]. The prehistoric components at these sites have all suffered significant impacts due to agriculture, land clearing, and previous road construction and none are considered eligible for inclusion in the National Register. Historic period components were also identified at 40RE226 and 40RE227, in both cases reflecting one or more domestic occupations of the early to mid-20th century. Neither of these components are considered eligible for National Register inclusion because of their late period of use, lack of component distinctiveness, and/or their loss of contextual integrity.

Sites 40RE231, 40RE232, and 40RE233 are all historic period sites which fall within the Department of Energy reservation. Site 40RE231 is a pre-1935 house site associated with the Wheat Community, one of the four rural settlements destroyed by the Manhattan Project in 1942. This site should be considered potentially eligible for National Register inclusion, pending further site definition and delineation of research goals in DOE cultural resources planning. The site is entirely within the existing state right of way, but should not be affected by proposed construction activity. Sites 40RE232 (which includes a Solid Waste Management Unit) and 40RE233 include the remains of facilities associated with the early stages of Oak Ridge reservation development and operations (*i.e.*, Clinton Engineer Works/Manhattan Project phase) between 1942 and 1950. Neither of these sites is considered eligible for National Register inclusion under Criteria D (*i.e.*, as an archaeological resource). They may, because of their historical associations, be considered eligible under Criteria A. We recommend that TDOT confer with DOE and K-25 cultural resource planners in making this determination.

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APPENDIX A
CORRESPONDENCE

1. TDOT memoranda concerning eligibility status of K-25 facility and the Oak Ridge Checking Station.
2. Memoranda from James Rogers (Environmental Compliance Officer , K-25) concerning 40RE232 and 40RE233.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL PLANNING OFFICE
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-0334

MEMORANDUM

TO: Mr. Jerry Moorhead, Manager 2
Transportation Planning Office

FROM: *RB* Raymond Brisson
Environmental Planning Office

DATE: February 15, 1994.

SUBJECT: Follow-up, Architectural Survey for Advance
Planning Report, State Route 58/95 from the
existing four lane section north of I-40 to the
existing four-lane section near Westover Drive,
Roane County

On 8 December 1993, I sent you a preliminary memo regarding the records search for the above referenced project. Since then, the staff historians have completed their field work. The research indicates that there are three properties along the corridor that are either listed in the National Register or are potentially eligible. These properties, whose locations are shown on the attached maps, are the following:

1. K-25: Recent discussion between the State Historic Preservation Office and the Department of Energy have indicated that portions of the K-25 facility, which is located immediately adjacent to SR-95, are eligible for the National Register either individually or a district.

2. The National Register listed George Jones Memorial Church is located to the west of SR-95.

3. The National Register listed Oak Ridge Turnpike Checking Station, is located on both sides of SR-95.

February 15, 1994
Mr. Jerry Moorhead

-2-

As design progresses on this project, please keep these concerns in mind and try to avoid impacts to these resources. If this project is state funded, Public Law 699 requires that we seek the comments of the State Historic Preservation Officer about effects to historic resources. If the project is federally funded the Department is required to seek the State Historic Preservation Officer's comments and in some cases the comments of the Advisory Council on Historic Preservation. Further, if the project takes land from a historic resource through fee simple acquisition or easements or if the project substantially impairs a historic resource (even if land is not taken), the Department is required to develop an avoidance alternative and prove that there is no prudent and feasible alternative to that use.

If this project is designed by a consultant, please make him aware of these concerns.

RB:MC:ljg

Enclosure

cc: Mr. Clellon Loveall
Mr. William Wallace
Mr. Pat Alexander
Mr. Hal Clemmons
Mr. Glenn Beckwith
Mr. Tom Love
Mr. Gerald Kline ✓
Mr. Jim Bryson, FHWA
Ms. Martha Carver
file:R1/01SR95F4

United States Department of the Interior
National Park Service

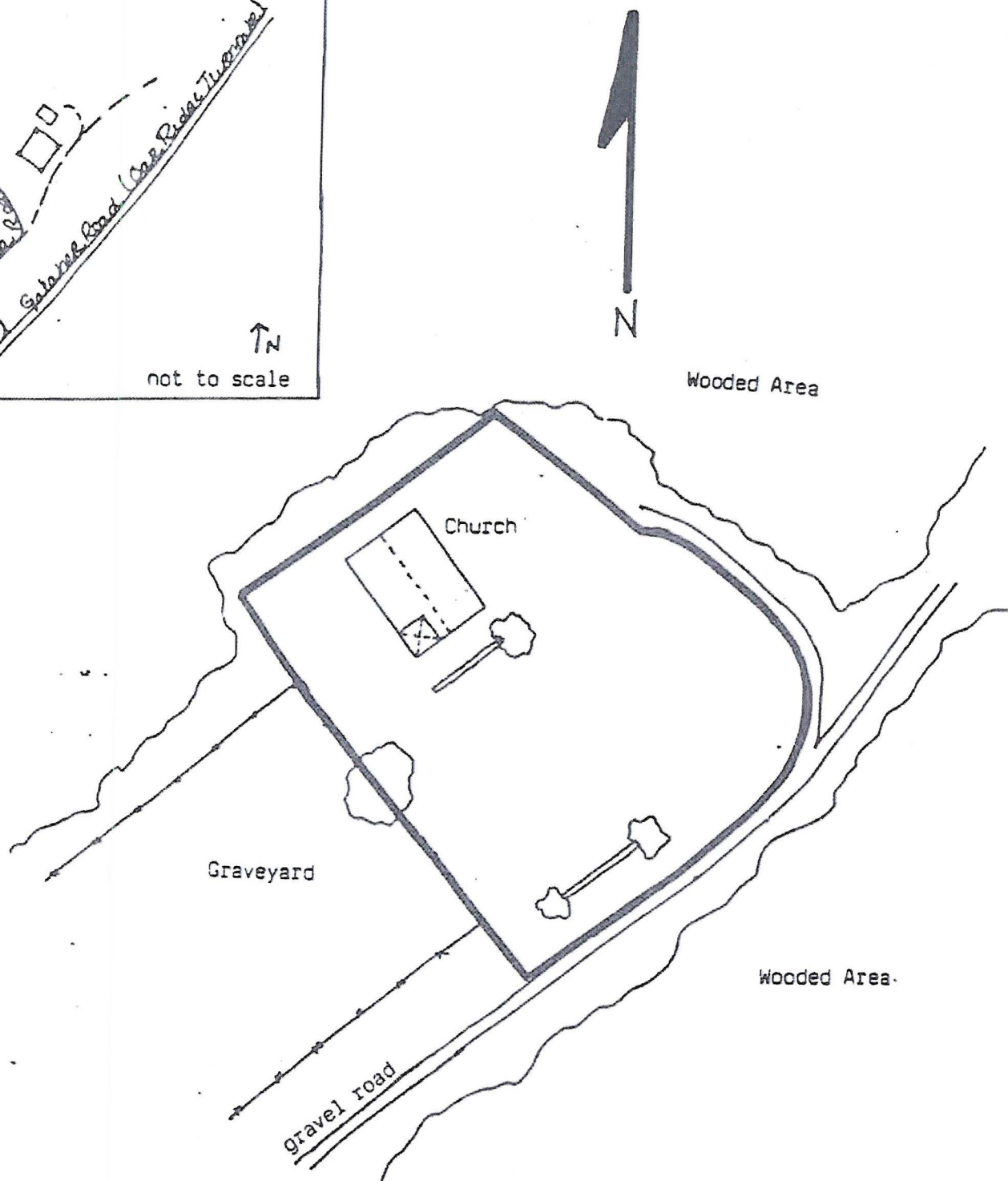
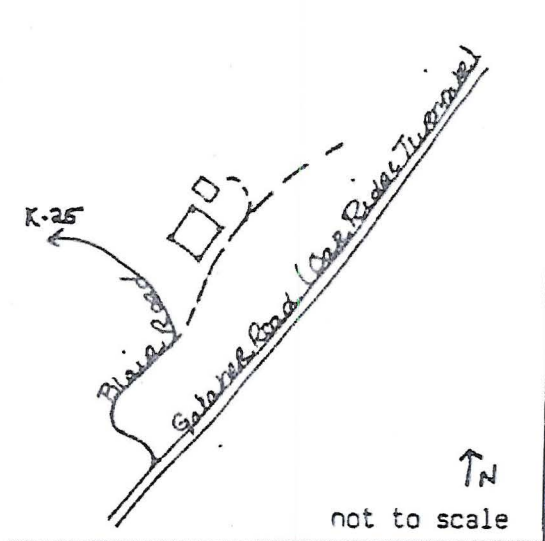
NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 10

George Jones Memorial Baptist Church Page #1

Verbal Boundary Description: The George Jones Memorial Baptist Church boundary is bounded on the southeast by the right-of-way of the old Wheat Road; on the northeast by a gravel drive; on the northwest by an intersecting line located twenty feet from the northwest facade of the building; and on the southwest by a post and wire fence.

Boundary Justification: The boundary of the George Jones Memorial Baptist Church is drawn to include the church building and adjacent yard. The boundary excludes a cemetery located to the west of the building. This cemetery contains common 19th and 20th century gravestone and statuary and does not possess significant monuments. No other buildings or structures are associated with the property.



George Jones Memorial Baptist Church
Blair Road
Oak Ridge, TN

not to scale

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

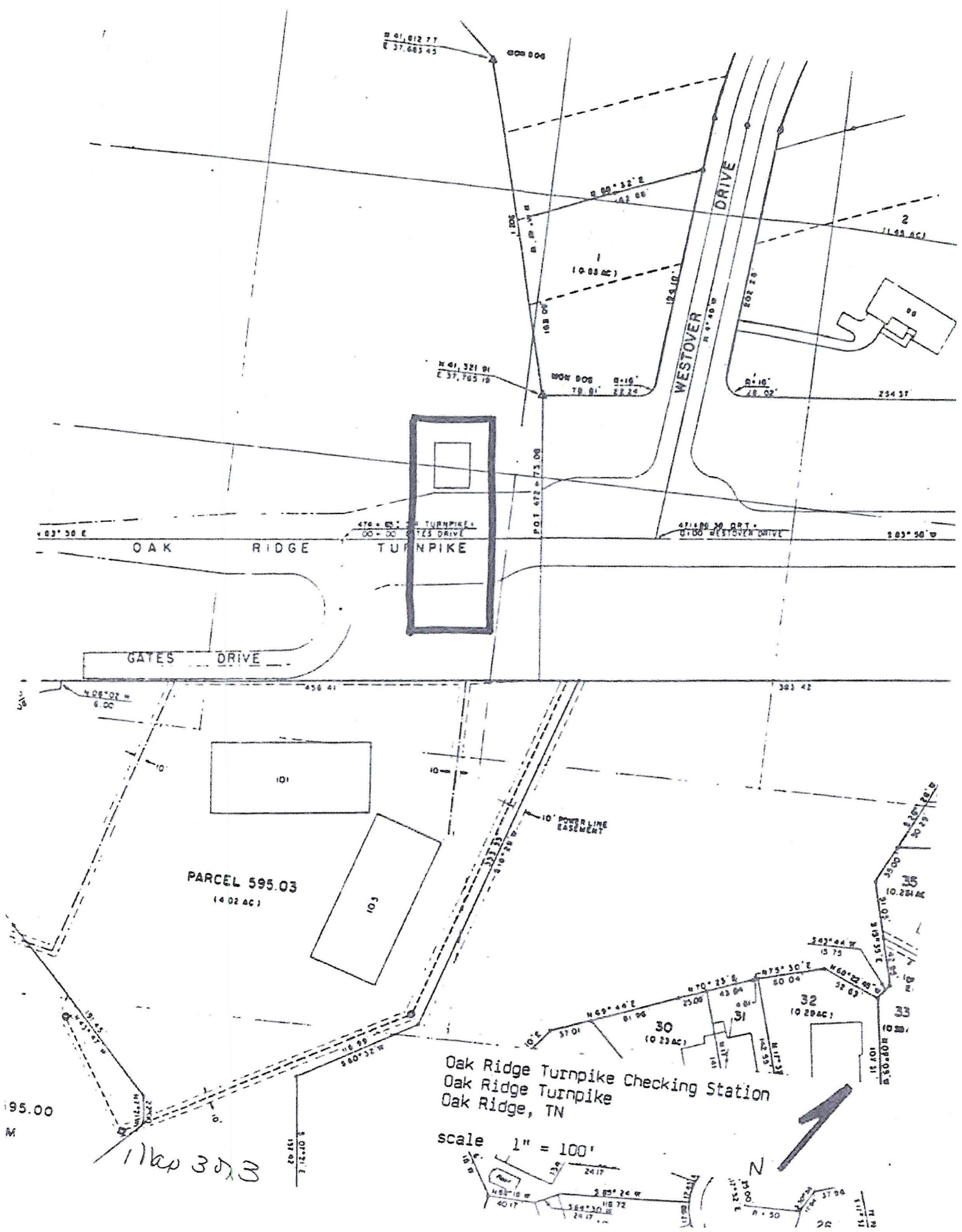
Section number 10

Oak Ridge Turnpike Checking Station Page #1

Verbal Boundary Description: The Oak Ridge Turnpike Checking Station boundary is a rectangle which is bounded as follows: on the northwest by an intersecting line which is located twenty feet from the northwest facade of the main building; on the northeast by an intersecting line located twenty feet from the northeast facade of the main building; on the southeast by an intersecting line located twenty feet from the southeast facade of the guard house; and on the southwest by an intersecting line which is located twenty feet from the southwest facade of the main building. The boundary is drawn to include a section of the adjoining Oak Ridge Turnpike.

Boundary Justification: The boundary for the Oak Ridge Turnpike Checking Station is drawn to include the main building, guard house, and adjoining section of the Oak Ridge Turnpike. The boundary includes all property historically associated with the site.

Map 283



Oak Ridge Turnpike Checking Station
Oak Ridge Turnpike
Oak Ridge, TN

scale 1" = 100'

116p 303

Unit Name: K-1085 Old Firehouse Burn Area

Unit Number: K13-R043

Regulatory Status: 3004.u

Area Number/Unit Location: Area 13, plant exterior, bounded by Oak Ridge Turnpike, Gallaher Road, and Powerhouse Road (Map Ref. No. 49)

Approximate Dimensions and Capacity: 0.1 acre; 20- x 25- x 15-ft pit dimensions

Dates Operated: 1946-1960

Present Function: Unused

Life Cycle Operation: An existing farmhouse on the site was converted to a fire hall in 1944 and served as such until 1951. A fuel station and garage were also used on the site from 1944 to 1947. Open burning of contaminated oil took place on the concrete pads of the three buildings until 1960. Also, waste oil was burned in an unlined pit until 1951, when the pit was filled.

Waste Characteristics: Details of the types and quantities of waste burned at this unit are unknown. Available information indicates that various waste solvents such as trichloroethylene, acetone, perchloroethylene, carbon tetrachloride, tetrachloroethylene, methyl chloride, PCB-contaminated oil, and paint wastes were burned in an open container at the unit.

Release Data: The waste-handling operations at this unit were not controlled. Pit burning was extinguished with water at the end of each day, and water was periodically pumped from the pit. Groundwater has been monitored from five wells in Area 13. No contaminants have been intercepted to date which were above suspected background levels. A summary of groundwater monitoring data is included in Table 18.

Site Characterization Status. A preliminary assessment/site inspection is planned for this unit.

Media of Concern: Soil and groundwater (see Table 18)

References:

RCRA Facility Investigation Plan, K-1085 Firehouse Burn Area, Oak Ridge Gaseous Diffusion Plant, Oak Ridge, Tennessee, K/HS-149, Martin Marietta Energy Systems, Inc., Oak Ridge Gaseous Diffusion Plant, Oak Ridge, Tennessee, August 1988.

INTEROFFICE MEMORANDUM

Date: 12-Sep-1995 01:07pm EDT
From: James G Rogers
ROGERSJG
Dept: 6125
Tel No:

TO: See Below

Subject: Information on K-25 in the 1940's
File: READ 012597

I have talked to Virginia Donahoe, President of the Retirees Association, to see if she perhaps remembered an area southwest of K-25 which is noted as "Fercleve Housing" on Plate 1 of Vol. 1 in the K-25 Site Building Survey conducted by Jacobs Environmental Restoration Team (May 1995 Draft). A recent DuVall and Associates survey of the same area for the State Highway Dept. revealed 8 to 10 small concrete foundations in this same area. Some of the foundations appeared to be small three room buildings in a general "L" configuration. Some were plumbed.

Virginia recalls that Fercleve was a subcontractor to the government. The building foundations mentioned above were most likely structures constructed by Fercleve for office areas or perhaps shop areas. She thinks all personnel housing (homes) was in the Happy Valley Area. Plate 1 also designates an area northeast of K-1037 (Barrier Plant) as "Ford Bacon Davis Housing". Virginia says Ford Davis Bacon was also a subcontractor to the government and the area mentioned was office/shop areas for Ford Davis Bacon employees.

By the way, Virginia remembers when Ford Davis Bacon employees were allowed to become employees of Carbide and Carbon Chemicals Company (C&CCC). Virginia was the woman with the most seniority in C&CCC until Ford Davis Bacon employees became C&CCC employees. At that time, a women previously with Ford Davis Bacon became the most senior C&CCC woman.

Virginia was Division Secretary in the Operations Division at K-25 when I started with Union Carbide in June, 1967. Virginia now authors a column in the Energy Systems News. She says there are 9500 living retirees or spouses of retirees. Most read her Energy Systems News column. She offered to include questions in her column from time to time requesting input from retirees. I told her I would talk to the Cultural Resources Task Team about her offer, and probably develop some questions for her to include in her column.

Ray, and Doug - I plan to e-mail/fax a copy of this memo to Mike Morris at Jacobs. The first two paragraphs may assist him in describing Plate 1 in Vol. 1 of his report.

Distribution:

TO: Douglas Daniel Aho
TO: Remote Addressee
TO: Ray Moore

(AHODD)
(mmorris@oak01.jacobs.com)
(MOORERT@oro.doe.gov@SMTP)

INTEROFFICE MEMORANDUM

Date: 13-Sep-1995 08:30am EDT
From: James G Rogers
ROGERSJG
Dept: 6125
Tel No:

TO: See Below

Subject: Additional Info. on K-25 in the 1940's
File: READ 012618

In reference to a letter from Bob Pace of DuVall and Associates to you entitled "Archaeological sites, Oak Ridge Operations area/SR58-95 survey", Bob Pace requested any information we might have on three locations near K-25. The locations were designated Field Nos. 8, 9, and 10. I understand the surveys are being performed for the State Highway Dept. as part of a road rebuilding project.

I sent you information yesterday which I obtained from Virginia Donahoe regarding the location designated as Field No. 10, the Fercleve structures. I plan to fax that information to Bob Pace today along with the information shown below for Field No. 9 location. I called Mr. W.L. (Richie) Richardson, a K-25 retiree who previously was responsible for fire protection at the K-25 Site. He provided some information on Field No. 9. Richie went to South Charleston for some training in December 1943 then came to K-25 in January 1944 and was assigned Badge No. 8, indicating he was one of the first to receive a badge assignment during the "startup" days. He told me there were several fire stations located around the K-25 Site in the 1940's. He thinks there were five stations which were operated by the City of Oak Ridge. One station was near the Field No. 9 location on the map supplied by Bob Pace. If I understood Richie correctly, he said that as you leave the main K-25 plant area and travel west on Hwy. 58 then turn right toward the old powerhouse area then take the left fork toward Bear Creek, the fire station was located in the area to the left. There was a fire station and an adjacent pit area where oil was burned. The oil was burned in order for the firemen to practice extinguishing fires. The fire station remained until some time in the 1950's. If we need to determine the exact location perhaps we can find a foundation and pit area or ask Richie to come by the plant and point out the site to us. (See additional message below for more information.)

He did not describe all five fire station locations near K-25; however he did indicate that another one of the five was located near Blair Rd. He indicated that after you turn off Hwy. 58 onto Blair Rd. then take first right curve then left curve, a fire station was also located in the area to the left.

I did not remember to ask Richie about Field No. 8 location. Since it was pre-Manhattan Project days, possibly a residential structure, and located further east at the SR58/95 interchange, I don't know if he would remember it. I will call him back if you want me to pursue it further.

As I was completing the above mail message, I received a fax from Doug Aho regarding Field No. 9. Yesterday, I asked Doug to check with the K-25 RCRA person, Cheryl Baker to see if K-25 had possibly identified the old fire station location as a Solid Waste Management Unit (SWNU). They have. The old firehouse burn area is designated as K-1085. I plan to send a copy of the fax to Bob Pace, along with this message. The exact location of the burn area is known.

Distribution:

TO: Ray Moore	(MOORERT@oro.doe.gov@SMTP)
CC: Douglas Daniel Aho	(AHODD)
CC: Suzanne Boyer Edington	(EDINGTONSB)
CC: Remote Addressee	(mmorris@oak01.jacobs.com@smtp)
CC: James G Rogers	(ROGERSJG)
CC: Souza, Peter A	(SOUZAPA AT COSMAIL2.CTD.ORNL.GOV AT S
CC: Conard L Stair	(STAIRCL)
CC: Robert Lawrence Ward	(WARDRL)
CC: Webb, Jennifer Lane	(WEBBJL AT A1 AT OCU)
CC: Wiest, Mick C Jr	(WIESTMCJR AT A1 AT OCU)