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June 25, 2021

HAND DELIVER

RECEIVED
Town of Cheshire
JUN 25 2021
Planning Dept.

Planning & Zoning Commission
Town of Cheshire
84 South Main Street
Cheshire, CT 06410

Re: Application of EG Home, LLC
Archaeological Report

Dear Commission Members,

Enclosed is an Archaeological Report prepared for Cheshire Route 10, LLC with respect to prior applications related to the Dickerman Road property which is the subject of the EG Home Lot 7 Stone Bridge Crossing application.

Recommendations set forth in the report will be followed by the applicant as it proceeds through state permitting.

Very truly yours,

FAZZONE RYAN & RICCIUTI, LLC

Anthony J. Fazzone

AJF/jmp

E-mail: afazzone@fazzoneryan.com

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REPORT OF ARCHAEOLOGICAL CHARACTERISTICS FOR THE PROPOSED SHOPPES AT CHESHIRE, INTERSTATE 691 AND ROUTE 10, CHESHIRE, CONNECTICUT

By
F. Timothy Barker
Timothy L. Binzen
Mitchell T. Mulholland

Presented to:
Cheshire Route 10 LLC
c/o:
Jeffrey Curley
Project Manager
W/S Development Associates, LLC
1330 Boylston Street
Chestnut Hill, MA 02647

UM-574

Presented by:
Archaeological Services
University of Massachusetts
310 Hicks Way
Amherst, MA 01003

2007

Principal Investigator:
Mitchell T. Mulholland, Ph.D.

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INTRODUCTION

Archaeological Services has prepared the following report on behalf of Cheshire Route 10 LLC in support of their application to the Cheshire Planning and Zoning Commission for approval of an Interchange Special Development District (ISDD). The scope of study and report format are consistent with a Phase 1A Archaeological Assessment in accordance with the methodology prescribed in the "Environmental Review Primer for Connecticut's Archaeological Resources" prepared by the Connecticut State Historic Preservation Office (SHPO). Should the project move forward, a Phase 1B Reconnaissance Survey, in accordance with the recommendations made herein, will be prepared for use in seeking any required state or federal approvals.

Any future archaeological survey will be conducted in consultation with the Connecticut SHPO and will be performed in compliance with state and federal regulations. All artifacts will be analyzed and curated in accordance with standard practices, and reports presenting the findings of all survey work will be provided to the Town of Cheshire, the project proponent, and all parties and agencies involved with the regulatory compliance process for the proposed development project.

Scope of Survey

The Town of Cheshire is located in New Haven County, Connecticut. A commercial development project ("The Shoppes at Cheshire") is currently proposed (Figure 1). The project area consists of 107 acres, portions of which have been previously impacted by sand and gravel mining. Other portions of the project area may possess sensitivity to contain unrecorded Native American or historical archaeological sites. Historical resources related to the nineteenth-century Farmington Canal exist within the project area.

Cheshire Route 10 LLC with offices at Chestnut Hill, Massachusetts, retained Archaeological Services at the University of Massachusetts-Amherst to perform an archaeological Phase 1A Assessment survey within the 107-acre project area. The objectives of the archaeological survey were to perform background research and a field reconnaissance in order to describe the condition of canal-related historical resources, and to assess the sensitivity for the project area to contain unrecorded archaeological sites. Recommendations for future Phase 1B subsurface archaeological testing to locate and identify any such sites are included in this report, which summarizes the findings and recommendations of the Phase 1A assessment survey.

Authority for Survey

Archaeological Services conducted the archaeological assessment survey in compliance with Federal and State legislation. Procedures were in compliance with legislation and regulations concerning the impact to archaeological properties from

federally-funded or permitted activities. These include the National Historic Preservation Act of 1966 amended 1980 (PL 89-665, 16 USC 470), the National Environmental Policy Act of 1969 (PL 91-990, 42 USC 4321), Executive Order 11593, 1971 (16 USC 470), Procedures for the Protection of Historic and Cultural Properties (36 CFR VIII, 800), and the Archaeological and Historic Preservation Act of 1974 (PL 93-291). State legislation concerning the identification, protection and management of historical and archaeological resources includes the Connecticut Environmental Policy Act of 1978, Section 22a-1a-3-(a)(4) and Connecticut Public Act 81-77. Connecticut archaeological permit regulations and standards are outlined in the *Environmental Review Primer for Connecticut's Archaeological Resources* (Connecticut Historical Commission 1987).

Project Boundaries and Description

The proposed Shoppes at Cheshire development is located at the northwest quadrant of the intersection of Routes 10 and Interstate 691 in the northern portion of Cheshire (Figure 1). The parcel is approximately 107 acres in size, and is bounded by Route 10 to the east; Interstate 691 to the south; Dickerman Road to the west; and the Southington town line to the north. The project area is divided roughly in half by the Ten Mile River, which flows from the southwest to the northeast and empties into the Quinnipiac River approximately half a mile downstream from the proposed development.

The Shoppes at Cheshire will include an upscale collection of specialty retailers, boutiques, fine dining establishments and entertainment venues within a thoughtful, pedestrian-friendly setting. The project will also include residential opportunities and indoor and outdoor recreation. Proposed public amenities include a pedestrian river-walk along the Ten Mile River and public park space, which will help link the commercial enterprises, proposed primarily on the eastern side of the Ten Mile River, to residences and public space offered for the western side of the development.

The project area contains historical resources related to the nineteenth-century Farmington Canal. The canal was built between 1825 and 1835. It was 86 miles long and connected New Haven, Connecticut to the Connecticut River north of Northampton, Massachusetts. Surviving elements of the canal complex were added to the National Register of Historic Places in 1985 (NRHP Reference #85002664). The portion of the canal in the project area is a part of the National Register site and is historically significant. The portion of the canal in the project area was recently reported in *Connecticut Preservation News* (Vol. 30, No. 5 Sept/Oct 2007) to be one of the "Most Important Threatened Historic Places in Connecticut." Recent flooding has caused considerable damage to the canal's culvert and berm, as well as construction arising from the partial collapse of this feature from flooding. The project's proponent is planning to minimize further damage and to incorporate this feature into its project.

Near the center of the proposed Shoppes at Cheshire project area, there are several historical features related to the Farmington Canal (Figure 2). The Ten Mile River passes through a stone arch culvert measuring approximately 150 feet in length. The culvert was built circa 1830 as part of the construction of the Farmington Canal. The canal itself historically spanned the valley of the Ten Mile River using a massive berm, made from earthen fill (Figure 2). The berm rose approximately 30 feet above the river and along a

portion of the canal that was known locally as the "Great Fill". Originally, the berm directed the canal over the valley floor for a distance of approximately 600 feet. A substantial portion of the historical berm is still visible and intact, and it forms a steep ridge with the canal trace that runs from north to south through the center of the 107-acre parcel where the Shoppes at Cheshire development is proposed.

Terraces and high hills frame the Ten Mile River valley along the eastern and western portions of the project area. Large sand and gravel quarries have extensively impacted much of the south-central and western portions of the 107-acre project area.

Personnel

Archaeological Services staff involved with the Phase 1A assessment survey project included F. Timothy Barker (field supervisor) and Marcus Tate (assistant archaeologist). Timothy Binzen was the project archaeologist and Mitchell T. Mulholland was the principal investigator.

METHODOLOGY

The archaeological Phase 1A assessment survey for the Shoppes at Cheshire included background research and a walkover to evaluate historical canal-related resources and to assess the likelihood for the area of investigation to contain unrecorded Native American and/or historical archaeological resources.

Background Research

In the course of conducting the background research, multiple methods were employed. These included:

1. Researching historical documents, such as town, county, and state histories and maps, and state or federal records, to determine the location of reported Native American sites of the Contact period, and historical structures and industrial sites within the area of investigation. The archaeological literature was researched to determine the characteristics of the types of sites that might be expected to occur within the project area. Sources consulted during background research are cited in the references section.

2. Researching archaeological site files maintained by the Connecticut State Historic Preservation Office (SHPO).

3. Researching archaeological site data maintained by the Department of Anthropology at the University of Massachusetts-Amherst.

4. Stratifying the project area using environmental factors known to be associated with ancient Native American settlement patterns.

5. Conducting a preliminary on-site visual inspection of the project area, including those areas predicted to have low sensitivity for containing Native American and historical archaeological sites.

6. Conducting interviews with local residents and other individuals knowledgeable in the history of the area of investigation.

Criteria for Assessing Archaeological Sensitivity

Numerous environmental attributes were considered in predicting zones of elevated sensitivity for archaeological sites. These attributes were identified by reviewing previous studies in landscape environments similar to the one seen in the project area. The following is a list of the major criteria used during the investigation to assess the

archaeological sensitivity of the project area:

1. The presence of known Native American or historical sites within or adjacent to the project area.

2. Proximity to a National Register property.

3. Proximity to a supply of fresh water.

4. Proximity to seasonal or perennial subsistence resources.

5. Soils characteristics such as drainage, texture, suitability for cultivation.

6. Topographic features such as slope, aspect, elevation, and barriers to prevailing winds.

7. Proximity to sources of raw materials.

8. Proximity to topographic features conducive to industrial development such as hydrologic features.

9. Proximity to areas known to have been early historical settlement clusters, or that may have been early settlement areas.

10. Proximity to transportation routes.

11. Proximity to industrial, commercial, and agricultural markets.

The project area was stratified prior to field survey in order to eliminate those areas requiring no further survey and to delineate those having the likelihood to contain archaeological resources. Areas subjected to previous ground disturbance were eliminated from consideration.

Determining Sensitivity for Native American Sites

Documentary evidence of pre-Contact Native American sites rarely exists. Therefore, the likelihood of encountering Native American sites is predicted on the basis of an environmental model which uses geological, soil, and climatic data; known site locations in the southern New England region; and expected Native American site locational patterns.

Studies of foraging peoples in many parts of the world have shown that, at a general level, populations tend to adopt a least-effort strategy in the procurement of resources. The assumption is that they tend to choose the most energy-efficient means of procuring the maximum resource yield, without sacrificing group well-being (Jochim 1976). One of many ways to reduce energy expenditure is to minimize the distance between the place

where a given resource is available and the locale where it is to be consumed. Consequently, one may predict that sites located with resource proximity in mind would be situated in those areas that are within the range of acceptability for human comfort and are also close to the resource being exploited.

The most important micro-climatic factors adversely affecting human physical comfort in New England are excessive moisture and cold temperature. Dry, well-drained, and level areas with the warmest available exposure would, therefore, meet the major criteria in the aboriginal site selection process. One can predict that level areas with well-drained soils and level to slightly sloping areas with a southern exposure would contain the highest aboriginal site density. Well-drained, workable soils were also important site selection factors for both Native American and Euro-American horticulturists. Perhaps the most critical resource to be considered, regardless of site function, is water. In inland situations, sites are likely to be located near a source of fresh water, such as a spring, a lake, or a stream. Lakes and streams also provide access to fish, waterfowl, and other game.

In order to stratify the proposed project area effectively (thereby eliminating areas of low sensitivity from consideration), topographic maps compiled by the U.S. Geological Survey and soil data compiled by the Soil Conservation Service were used to delineate all areas with well-drained soils and minimal slope. Level, well-drained soils in close proximity to water sources were considered to be areas of high sensitivity. Those farther from a water source are considered to have lower sensitivity. It was possible to stratify (rank) a project area into zones of high, moderate, and low sensitivity to contain archaeological properties, according to soil matrix and distance to water:

High Sensitivity. Undisturbed areas less than 300 m (1,000 ft) from water, on level, dry, well-drained soils were considered areas of high sensitivity. These areas require clusters of shovel test pits using a sampling interval of 7.5 m (25 ft) between pits, because small Native American sites may be expected. This interval is also adequate to intercept small historical foundations and refuse deposits.

Moderate Sensitivity. Areas more than 300 m (1,000 ft) from water, but on well-drained soils are considered to have moderate sensitivity. These areas are typically tested with shovel test pits at a 7.5-m (25-ft) interval. This interval is the same as in areas of high sensitivity, but fewer test pits are used to sample areas of moderate sensitivity.

Low Sensitivity. Areas that are poorly drained, in excess of 15 percent slope or that have been disturbed are considered to have low sensitivity. No subsurface testing is conducted in these areas.

During the reconnaissance, evidence of disturbance of the landscape was used to eliminate areas from consideration. The reconnaissance was also used to verify the evaluation of any area previously assigned low sensitivity on the basis of historical maps and documentary research.

Determining Sensitivity for Historical Sites

Because documentation exists concerning historical land use, an environmental model was not used in stratifying the project area for its sensitivity to contain historical sites.

Field stratification for historical site location is based upon documentary research. Identification of important time periods in local history, and recognition of places and people who were significant on the local, regional, or national scales, help to identify the kinds of archaeological resources expected during fieldwork.

Census figures provide an indication of the patterns of population change, often reflecting periods of economic growth, decline, or stability. These patterns identify time periods in local history when significant events are likely to have occurred and to have left archaeological evidence.

Map research frequently reveals the infrastructure that developed historically within a project area, and the types of land use which occurred there over time. Since map-making methods have improved continuously over the centuries, and the level of detail on maps consequently increased, information from earlier maps is used with caution. Prior to 1850, structures, rivers and boundaries were often depicted schematically. Nonetheless, maps indicate the relative importance of a project area to transportation networks, and suggest its relationship to centers of commerce, manufacturing, and habitation.

The model for the historic period is based upon background research concerning the project area, found in written histories, historical maps, and interviews with local residents. Predictive assessments of the types of archaeological information likely to be encountered are drawn from such information. The historic period model is based much more heavily on local documentary resources than is the model for Native American sites, and is based on a larger set of shared assumptions about the timing and significance of events in the past.

Some of the factors considered in each case are:

1. The position of the project area in a transportation network;

2. The proximity of the project area to commercial, manufacturing, or resource production sites;

3. Periods of economic growth, stability, or decline measured primarily from the census; and

4. Unique or local events that affected land use or reputation of the project area.

When no historical resources can be documented, either through historical research or a walkover, reliance is placed upon the results of the same archaeological field-testing used for Native American resources.

SUMMARY OF ENVIRONMENTAL, NATIVE AMERICAN, AND HISTORICAL CONTEXTS

Environmental Context of the Cheshire Area

The environmental context of Cheshire was evaluated in order to identify natural resources that may have been important to pre-Contact and historical populations. The environmental context is an important factor to consider when assessing the likelihood for the presence of Native American and Euro-American sites within the project area. Using geological, soil, and climatic data, the environmental context and natural landscape that may have existed previously may be reconstructed. These factors also may be used to describe the forces that have formed the current topographic landscape of the area.

According to the predictive model used for locating Native American sites, the likelihood for archaeological sites to be present in an area is primarily based on the environmental context. Bedrock geology helps to identify where Native American groups could obtain raw materials for stone tool making. Fresh water sources and transportation routes directly influenced the location of Native American sites. The variety and quantity of available natural resources are dependent on soil composition and drainage, which also play a significant role in determining wildlife habitats and forest and plant communities. Although the predictive model for the historical site sensitivity is primarily based on historical maps and documentation, the settlement patterns of the Euro-Americans were strongly rooted in the environment as well.

Geographic Setting, Topography, Geology and Geomorphology. The Town of Cheshire is located in southwestern Connecticut, within the New England Upland physiographic region (Fenneman 1938). The western boundary of the New England Upland is defined by the Taconic Mountains, which formed when a volcanic arc that collided with the edge of the continent, resulted in the Taconian Orogeny in the Middle Ordivician Period. The eastern boundary is defined by the Worcester Plateau, which gives way to the New England Seaboard Lowlands. The entire New England province was laterally compressed, creating the mountains of the western boundary and the plateau-like uplands of the eastern boundary with the Connecticut River Valley, which cut into the relatively soft sedimentary rocks. This divided the two uplands, which were formed of relatively harder metamorphic and igneous forms of granite, schist and gneiss. The Connecticut River Valley is approximately 153 km (95 miles) in length and 32 km (20 miles) in width, stretching from southern Vermont and New Hampshire to southern Connecticut. The topography of the broad upland east of the Connecticut River known as the Worcester Plateau is generally level, with the exception of residual mountains standing singly or in groups (Fenneman 1938).

Soils. Soils develop over time through processes of erosion and the accumulation and decomposition of organic matter within deposits of parent material. Therefore, the characteristics of the soil depend on many factors, including topography, drainage, climate, and the composition of the parent material, as well as the flora and fauna in the

area.

As a result of glaciation in the region many soils develop from glacial related deposits such as glaciolacustrine (glacial lake) deposits, outwash and till deposits. The advancing glaciers acquired sediment loads, including soil materials and rock debris, from abrasion and plucking of material from the bedrock and adjacent valley walls as they made their descent. Much of the debris was carried at the base of the glacier with other rock debris concentrated along the margins of the glacier. As the glacier melted, running melt-water deposited sorted materials called glacial outwash deposits (Boggs 1995:334). These deposits became parent material for the formation of soils.

The soils within the Shoppes at Cheshire project area include zones of Hinckley and Manchester soils, Manchester gravelly sandy loam, and Saco silt loam. In other zones, disturbance has been incurred by previous sand and gravel operations.

Flora and Fauna. After the glaciers retreated, the local vegetation progressed from tundra to spruce forest, then pine forest, and now deciduous forests of various compositions (Ritchie et al. 1973). The urban character as well as the variations in temperature, moisture and soils ultimately determines what type of vegetation will grow in the area. In general, the project area is located in a zone between northern and southern flora, but may be grouped with the Central Hardwood forest classification. The forest classifications are based on climatic differences at different altitudes and latitudes. The Central Hardwood region is classified as having a variable climate, rich soils, and regular precipitation. Trees typically found this classification include maples, oaks, ashes, hickories, basswoods, black walnut, American sycamore, yellow poplar, yellow buckeye, sweetgum and conifers (Brockman 1986). However, the original forest cover of much of the region was cleared historically for agricultural and other pursuits.

The wildlife populations in the region have been altered as modern development transformed the wildlife habitat, including the amount and distribution of food, cover, and water. The fauna of the region, like the vegetation, has evolved through time. The large mammals that roamed the tundra after the glacial period, including caribou, musk ox, mammoth, and dire wolf, have given way to smaller mammals. Moose, elk, and deer were residents of the area when the pine forests were prevalent, and as the forests became deciduous, the black bear, white-tailed deer and elk became dominant. Although distribution and number varied, smaller mammals remained present throughout the varying flora changes. The beaver, muskrat, raccoon, woodchuck, bobcat, timber wolf, red and gray fox, otter, fisher, and other small rodents would have been present throughout the post-glacial period to European contact. Turkey and migratory birds were numerous. Because of the rivers and lowlands in the area, the environment was ideal for amphibians and reptiles such as different species of turtle, snake, and frogs. Shellfish and fresh water fish such as trout, bass, pike, and sturgeon were found throughout the area (Funk 1976).

Native American Cultural Context for Southern New England

Paleoindian Period (10,500 - 9000 Years Before Present). The Paleoindian period witnessed the earliest human occupation of New England. The Paleoindian populace of the region evidently was organized in small bands that were equipped with a sophisticated and specialized lithic technology. Artifacts associated with this period include fluted projectile points, Eden and Plano points, scraping tools, gravers, and drills. Occupying the formative landscapes of post-glacial New England, the highly mobile Paleoindians practiced a diversified seasonal hunting and gathering subsistence, and ranged over great distances to exploit emergent floral and faunal resources associated with glacial lake margins. Paleoindian archaeological sites are very rare in New England, as the rapid rate of environmental change and landscape formation in the Early Holocene worked against the preservation of Paleoindian archaeological deposits.

Evidence from the greater Northeast indicates that the first Paleoindians entered the region shortly after the retreat of the Wisconsin glacier, which occurred approximately 13,000 years ago in western New England. This initial human settlement took place approximately 12,000 years ago, somewhat later than in the western part of North America (Haynes et al. 1984).

A tundra environment succeeded the Wisconsin glacier, and was, in turn, replaced by a spruce-parkland community (Davis and Jacobsen 1985). Paleoindians living in these post-glacial ecological contexts have traditionally been characterized as hunters and gatherers who subsisted primarily on several species of large animals known to have herded in the Northeast, including mastodon and mammoth. Little evidence of human interaction with these megafauna has been identified in the Northeast, however, and more recent interpretations have focused on smaller species such as caribou and elk as primary food sources (Curran 1987; Dincauze 1990). In southern New England, Paleoindian evidence has generally consisted of surface finds in plowed fields, with few intact habitation sites recorded. However, recent excavations at the Hidden Creek Site in Connecticut have provided significant data concerning a Paleoindian occupation that occurred next to an extended wetland system (Jones 1997).

Early Archaic Period (9000 - 8000 B.P.) During the Early Archaic Period, profound environmental changes continued in New England. Rising sea levels inundated coastal plain areas. The regional climate became warmer and drier, and a mixed pine-hardwood forest came to dominate the landscape. The diagnostic artifacts most closely associated with the Early Archaic Period are the Bifurcate-based projectile points, and stemmed or corner-notched points of the Palmer and Kirk types.

In the Northeast region generally, archaeological sites from the Early Archaic Period are very rare. The social and technological adaptations devised by the indigenous populations of New England at the time are not yet well understood. Research indicates that Early Archaic social groups moved within established territories, practicing an increasingly generalized subsistence strategy based on river and lake systems and wetland mosaic physiographic zones. The megafauna of the late Pleistocene had disappeared, leaving smaller mammalian species such as moose, deer and beaver. Environmental conditions would have made seasonally available natural food resources more predictable and abundant, allowing human populations to exploit a wider range of

territories.

Evidence from the greater Northeast indicates that hilltop locations did not factor as importantly in the settlement system of the Early Archaic people, in comparison to the previous period. Early Archaic period sites are generally smaller, indicating that people were not organized in large bands. The extensive herds of game present in the preceding millennium were apparently gone by this period, explaining the lesser importance of hilltop sites. As in the Paleoindian period, tool styles were uniform across the Northeast region, although implements were manufactured from materials that were available locally (Braun and Braun 1994). It is possible that a smaller, localized population structure developed.

Recent research suggests that a second cultural tradition of the Early Archaic featured a quartz cobble lithic industry, represented by steep-edged unifacial scrapers and a distinct lack of projectile points in artifact assemblages (Robinson and Petersen 1993). Ongoing research in eastern Connecticut continues to provide important new information concerning seasonal, complex habitation sites of the Early Archaic Period (Forrest 1999).

Middle Archaic Period (8000 - 6000 B.P.) The Middle Archaic Period in southern New England witnessed a climatic warming trend and the diversification of ecosystems. During the Middle Archaic, environmental conditions in the region became similar to those of the modern period. The deciduous forest became established, providing a diverse array of plant and animal foods (Dincauze 1976; Dincauze and Mulholland 1977). Archaeological data indicate a Middle Archaic settlement system of planned seasonal movement, oriented around major rivers and streams. Subsistence was based upon plant gathering, hunting, and the harvesting of anadromous fish. Middle Archaic artifact assemblages are characterized by projectile points belonging to three types: Neville (8000-7000 B.P.), Stark (7700-7200 B.P.), and Merrimack (7200-6000 B.P.).

Ground stone technology and new varieties of tool types were introduced, including grooved axes, net sinkers, gouges, adzes, plummets, and *atl-atl* weights (Dincauze 1976). The distribution and moderate frequency of Middle Archaic sites in New England indicate that a multi-seasonal settlement system was established by this period. Recent investigations at the Annasnappet Pond Locus 1 site in Carver, Massachusetts have revealed the largest assemblage of Middle Archaic artifacts in association with radiocarbon dates in New England (Doucette and Cross 1997). Six radiocarbon dates ranging from 7,880 to 7,290 B.P. were obtained from human burial, hearth and storage pit features, in addition to more than 170 Neville and Stark projectile points.

Late Archaic Period (6000 - 3000 B.P.) Archaeological sites of the Late Archaic Period in southern New England are much more numerous than those of preceding periods. Throughout southern New England as a whole, sites dating from the fifth and fourth millennia (5000-3000 B.P.) are the greatest in number of any pre-Contact time period (Mulholland 1984). This is reflected in the records of professionally excavated sites and in the inventories of artifact collections. Settlement systems identified for the Late Archaic Period indicate a population increase and a continued trend toward generalized exploitation of resources. The people of the Late Archaic Period occupied a wide variety of ecological niches. This varied pattern is manifest in Connecticut, where Late Archaic sites have been recorded in proximity to swamps, marshes, streams, and

rivers, and in varied topographic zones, such river terraces and wetland margins. Sites of the Late Archaic Period tend to contain multiple components, having witnessed frequent reoccupation during various time periods.

Three distinct cultural traditions have been recognized within the Late Archaic Period: the Laurentian Tradition, the Small Stemmed Tradition, and the subsequent Susquehanna Tradition (described below in the Transitional Archaic section). These traditions are generally distinguished on the basis of projectile point types. The Laurentian Tradition, which arose during the end of the Middle Archaic Period, was first identified in New York and Martha's Vineyard (Ritchie 1969). The tradition is characterized by an artifact complex that contains wide-bladed points with side or corner notches, and stone tools such as gouges, plummets, adzes and *atl-atl* weights.

While archaeological evidence exists for all three Late Archaic traditions in Connecticut, the Small Stemmed Tradition is predominant. Artifact assemblages of this tradition are distinguished by small, thick, narrow-bladed, stemmed or notched projectile points. Displaying a preference for quartz and quartzite as materials for tool manufacture, people of the Small Stemmed Tradition made extensive use of marsh and wetland peripheries, perhaps due to the environmental constriction of other resource areas. Settlement patterns entailed large, seasonal camps with small, temporary sites. The larger camps appear to have been base camps, often situated along major rivers. Smaller, more specialized occupations were located in a variety of environmental zones including terrace and upland areas (McBride 1984).

The relationship between the three recognized Late Archaic traditions remains unclear. Laurentian materials are more numerous in central and western New England, suggesting that this tradition represented an interior, upland adaptation. An alternative interpretation is that the Laurentian, part of the greater Lake Forest tradition which has a distribution that extends from New Brunswick to Wisconsin, represented a form of ethnic identity. Laurentian materials that appeared approximately 4,500 years ago may indicate that a form of population movement occurred, probably originating in the Great Lakes region.

The implications of the more common Susquehanna and Small-Stemmed traditions of the Late Archaic are unclear. It has been suggested that the two traditions consisted of distinct populations, the former having been an intrusive group, which peacefully coexisted with the latter for millennia (Dincauze 1974, 1975). It is considered likely that the technological precedents for Susquehanna tools are found in the southeastern United States, ultimately deriving from Middle Archaic stemmed biface types of that region. In contrast, the Small-Stemmed tradition and its artifacts are widely viewed as having been a phenomenon which originated within the Northeast, having derived from indigenous people of the Middle Archaic period there. It is likely that the presence of Small-Stemmed and Susquehanna artifacts in a single site represents some combination of technological exchange and population mixture, varying by location (Ritchie 1969; Dincauze 1976; Snow 1980; Bourque 1995).

Transitional Archaic Period (3600 - 2700 B.P.) The Transitional Archaic Period comprised the development of the Woodland Period adaptive technologies and settlement systems from those of the Late Archaic Period. During the Transitional Archaic in southern New England, evidence for occupations by people of the

Susquehanna Tradition became more widespread, although the Small Stemmed Tradition remained prevalent. Sites of the Transitional Archaic period are commonly marked by Susquehanna broadspears, Orient Fishtail points, Atlantic-Snook Kill variant points, Genesee points, and Wayland Notched points. In the Northeast region, complex burials and the incorporation of steatite (soapstone) vessels into technological assemblages also typify this period. A wide variety of site types have been recorded, including small special-purpose camps, large seasonal base camps, steatite quarries, and cremation burial grounds. Artifact assemblages occasionally include cord-marked and grit-tempered ceramics.

Early Woodland Period (3000-2000 B.P.) Technological innovations of the Woodland Period included the manufacture of ceramic vessels and the emergence of the Meadowood and Rossville projectile point types. Woodland Period subsistence patterns were affected by the introduction of horticulture, in which maize, beans and squash were major cultigens. Hunting, fishing and the gathering of wild foodstuffs remained essential subsistence activities, however. Coastal resources weighed heavily in the subsistence regimes of indigenous people, a pattern reflected in the settlement systems of the Early Woodland Period. During this time, an apparent shift in settlement from interior wetlands to large river drainages occurred.

The Early Woodland Period in southern New England is generally under-represented in terms of site frequency. While this has been attributed to a decline in population, it is more likely evidence of difficulty in identification; the manufacture and use of Small Stemmed quartz projectile points continued into the Woodland Period, raising the possibility of confusion between Late Archaic and Early Woodland archaeological components. In many instances where multiple-component sites are involved, distinguishing between Late Archaic and Early Woodland assemblages in the absence of pottery is problematic.

Some changes in subsistence strategy are apparent during this time, probably representing a continuation of the Late Archaic trend toward a more localized, semi-sedentary settlement system. The more permanent types of camps were established along the coast or inland watercourses, where an abundance of waterfowl, fish, and sea mammals could be easily exploited. Shellfish were also taken, although it seems that these were not a major dietary component until the Middle Woodland period. Despite an increasingly localized focus of subsistence, the pattern remained one of hunting and gathering, particularly along water bodies where fish could be included in the daily fare. This period witnessed the first widespread use of ceramics across the Northeast. The advent of ceramic vessel manufacture was previously believed to have coincided with the development of horticultural practices, having provided a means of storing surplus food obtained through purposeful planting. It is now known that in most of New England, cultigens were not a major element of human subsistence for at least 1,500 years after ceramics became established in the region.

The rich burial ceremonialism of the Late Archaic period continued into the Early Woodland, with exotic artifacts such as gorgets, birdstones, pottery pipes, copper beads, and red ocher placed in graves with human remains (Ritchie 1965; Spence and Fox 1986). The presence of such exotic goods at sites in New England provides evidence of established trade routes extending to the Midwest, where the Adena cultural complex

flourished.

Middle Woodland Period (2000 - 1000 B.P.) In southern New England, archaeological evidence for Middle Woodland occupations is generally more common than that for the preceding period. A higher level of sedentism in settlement patterns is indicated, in addition to population increase, greater social complexity, horticultural refinements, and engagement in regional trade. Technological diversification expanded, marked by a proliferation of ceramic styles and the emergence of Greene, Fox Creek, Jack's Reef Pentagonal and Corner Notched projectile points. People of the Middle Woodland Period in southern New England obtained exotic lithic materials, including Pennsylvania jasper and New York State chert. Subsistence trends of the Early Woodland continued. In parts of New England, large, semi-permanent, or perhaps even year-round settlements were established by this time (McManamon 1984).

The Middle Woodland period witnessed a development from minimally decorated ceramics to widespread use of elaborately decorated wares. No functional interpretation for this change is suggested. Instead, the increased decoration was likely due to ethnic identification. Another technological adaptation, use of the bow and arrow, also emerged during this period.

Late Woodland Period (1000 - 450 B.P.) The Late Woodland period in much of the Northeast region saw the aggregation of indigenous populations into large, complex villages. In southern New England, however, evidence suggests that settlements were on a more modest scale. Composed of extended family groups, communities may have moved regularly from inland bases in major river valleys to coastal sites, in order to exploit seasonally abundant resources. While population apparently increased, it became nucleated into villages in defensible locations. River confluence points and the heads of estuaries were often favored, while smaller satellite sites served as special-purpose camps for farming, hunting and harvesting shellfish (Snow 1980). Due to a climatic warming trend after 1000 B.P., conditions for horticulture were particularly favorable; extensive supplies of maize and other foodstuffs were maintained in subsurface pits.

Late Woodland Period artifact assemblages in southern New England are marked by a high volume of artifacts, worked stone implements, diverse pottery styles, textiles, and triangular Levanna projectile points. In coastal areas, extensive shell midden deposits were common. However, as European colonists often settled the Native main village locations of the Late Woodland period intensively in the early historical period, opportunities to examine Late Woodland settlements archaeologically have been few.

The Late Woodland period constituted the close of the Pre-Contact era. It was during this period that the patterns of Native American settlement witnessed by the first European explorers were established. Horticulture, which included such domesticated flora as maize, beans and gourds, became a widespread and significant contributor to subsistence. Additional evidence exists for permanent settlements, or locations that were used for much of the year, especially on the coasts (Carlson 1986).

It has traditionally been assumed, due in part to early historic narratives, that permanent settlement became widespread as a result of a dependence on maize. However, corn is infrequently found at sites in New England, despite all efforts to recover evidence for its use (Thomas 1991). A more likely interpretation for the trend toward year-round

settlements is an increase in population, territoriality, and conflict. Regardless of the role of domesticated plants in the overall diet, wild plants and animals factored greatly in daily subsistence. In many parts of the Northeast, subsistence and settlement continued to be based on a system of hunting, gathering and fishing, using seasonal satellite camps.

HISTORICAL CONTEXT OF CHESHIRE AND THE FARMINGTON CANAL

Cheshire. The Town of Cheshire (inc. 1780) is located in northern New Haven County, in the southwestern part of Connecticut. Cheshire contains 33.4 square miles, and is bounded on the south by Hamden, on the west by Waterbury and Prospect, on the east by Meriden and Wallingford, and on the north by Southington in Hartford County. The town is 14 miles north of New Haven and 25 miles southwest of Hartford (Beach 1912).

Under the early name of West Farms of Wallingford, or the West Society, Cheshire first witnessed colonial settlement in ca. 1694 with the arrival of families from Wallingford. The first two European-American families in the locality were those of Joseph Ives in the southeast part of Cheshire, and of Captain John Hotchkiss in the north.

West Farms was called New Cheshire after Cheshire, England, in 1724, and was incorporated from Wallingford. The town was renamed Cheshire in 1780. Some of the first colonial houses were fortified for protection against Indian attack, and the village was laid out so that colonists could be quickly gathered together for defense (Beach 1912).

As early as 1694, a highway existed at Broad Swamp, and in 1702, two highways were built on the west side of the river. The Cheshire turnpike was chartered in 1800, and led from Temple Street in New Haven through Cheshire to the southern edge of Farmington. The turnpike provided an impetus to commerce and to stagecoach companies. In 1852, a plank road was constructed between Waterbury and Cheshire.

The Cheshire Ecclesiastical Society was established in 1723 as the West Society of Wallingford. The first church was erected in the same year. Schoolhouses were constructed in 1727.

In 1711-1712, a small copper mine was discovered in the town. In 1840, a barite mine was discovered, which at one time would employ five hundred people in its operation. Many early industries flourished in the town. Horse nails were manufactured in 1876 by the Englishman George J. Capewell, who took out one hundred and fifty patents in his lifetime, and in 1880 perfected a machine at his Cheshire shop that made more than fifty finished nails per minute (Beach 1912).

Traditionally a small, prosperous farming town, Cheshire had a 2005 population of 29,097 residents. The community is accessible to several cities that are economic centers in southwestern and central Connecticut.

Farmington Canal. The Farmington Canal was the result of an ambitious, privately funded attempt to improve internal transportation in Connecticut. By 1820, a network of improved turnpikes in Connecticut enabled the transportation of goods between the rural towns of the interior and the established commercial centers found along the major rivers and the coastal areas of the state. However, transporting goods over land was costly. Water transportation on the Connecticut, Housatonic and Thames rivers was comparatively easy and inexpensive (Camposeo 1977; Harte 1938; Quigley 1964; Sloane 1958).

It was the completion of the 260-mile Erie Canal in upstate New York that made financiers in New Haven realize that they could have access to the interior by building a

canal route from the tidewater at New Haven northward to the Massachusetts border and beyond. The goal was to increase the commercial prominence of New Haven while decreasing the role of Hartford, which enjoyed an advantageous location on the Connecticut River (Camposeo 1977).

The result would be a canal 86 miles long, connecting New Haven to the Connecticut River north of Northampton, Massachusetts. The portion of canal in Connecticut was designated as the Farmington Canal, and it ran through Cheshire. In Massachusetts, the northern portion of the canal was designated as the Hampshire and Hampden Canal.

Starting in 1821, backers of the Farmington Canal raised capital for its construction. In 1822, a route was surveyed, a charter was granted to the Farmington Canal Company, and a commission was appointed to regulate the activities of the Company. The Hampshire and Hampden Canal Company received its charter in 1823 (Camposeo 1977).

Ground-breaking ceremonies for the canal system took place in 1825 at the Massachusetts-Connecticut line. Considerable engineering difficulties existed, as well as financial challenges and difficult relationships with landowners, but in 1828, the portion of the canal between New Haven and Farmington was opened. Although the northern part of the canal to Northampton and the Connecticut River was not completed until 1835, the years between 1830 and 1835 were generally successful and lucrative for the canal company. Increased freight business on the canal had positive economic effects on the communities it served. Many businesses advertised that they had access to canal navigation.

The canal system had many components within its right-of-way. The overall route included 56 miles in Connecticut and 30 miles in Massachusetts. The canal measured 36 feet across on the surface of the water, 20 feet across at the bottom, and was four feet deep. Twenty-eight locks were constructed to allow navigation of the 292-foot rise in elevation between New Haven and Granby. Canal-related components included the canal channel itself, with its graded banks and towpath; numerous locks, toll houses, private crossings, and bridges; culverts and aqueducts; and massive earthworks, such as the "Great Fill" in Cheshire, that enabled the canal grade to span low-lying valleys and drainages (Camposeo 1977; Harte1938).

During the era of the canal, West Cheshire was called "Beachport" after Samuel Beach, who maintained a warehouse on the canal through which many products from the Naugatuck Valley passed for shipment. Farmington Canal Lock No. 12 is located at 487 North Brooksvale Road in Cheshire, and was listed on the National Register of Historic Places in 1973. Extant features of the Farmington Canal/New Haven and Northampton Canal were added to the National Register in 1985 (NRHP Reference #85002664).

Ultimately, the Farmington Canal was not able to succeed. The boats that used the canal were not owned by the Canal Company. Parties who wished to use the canal could do so by paying the required toll, which was calculated according to the weight of the freight being carried. The toll revenues covered the operating expenses of the Company, but were insufficient to handle expenses incurred by floods, droughts, or the draining of canal waters by desperate farmers. By 1836, both of the canal companies were in severe debt. It became impossible to attract additional investors. The two companies were consolidated for ten years prior to 1848, and were just able to maintain the canal facilities. The most fundamental threat to the canal was seen in 1838 with the opening of the New Haven Railroad, linking New Haven and Meriden. In 1848, the canal was

replaced with a railroad that used the complete, existing right-of-way and also the graded banks of the canal, which served as a railroad bed with relatively little modification. The railroad was much more lucrative because it functioned as a monopoly, owning not only the road, but the carriages, and able to charge what tolls it liked.

During its existence, the canal did spur economic activity in communities along its banks. After the closing of the canal, certain sections between locks were used as mill ponds. During its planning and existence, the canal was opposed by many farmers and land owners whose property was taken by eminent domain. The ultimate failure of the canal may be attributed, in part, to the unwillingness for the public to support, even in part, this massive private enterprise. Although the canal provided benefits to many communities in Connecticut, the state government refused to provide any support, providing a regional example of resistance to the system of mixed economy (marked by increased involvement of the government in aspects of the economy) that would later come to prevail in the United States.

Expected Cultural Resources

The likelihood for the Cheshire survey area to contain ancient Native American archaeological sites was evaluated on the basis of several criteria. These included proximity to previously recorded ancient Native American sites, the types and condition of soils, surficial geology, degree of slope, slope orientation, proximity to freshwater sources and wetlands, and proximity to useful resources or raw materials. The likelihood for historical archaeological sites to be present in the survey area was assessed through historical documents, maps, and town histories that describe the settlement systems and land use seen in the community since European-American settlement began.

Native American Sites. UMAS consulted the Connecticut Historic Preservation Commission site files and found no Native American sites in the project area. There are several sites in the site files in Cheshire in environmental settings similar to that of the project area. During the pre-Contact period, New Haven County witnessed extensive settlement by Native Americans. Evidence indicates that the earliest human occupations in this vicinity occurred during the Paleoindian period, more than 11,000 years ago. Native American settlement continued through the Early, Middle and Late Archaic periods (3,000 to 9,000 years ago) and through the greater Woodland period (500 to 3,000 years ago). Native Americans continued to occupy the area during the Contact period and early Colonial period (A.D. 1500-1675), and contemporary descendant communities include this vicinity within their cultural heritage areas.

The extant body of information concerning prehistoric land use and settlement in southwestern Connecticut is the cumulative result of more than 100 years of research by local historians and avocational and professional archaeologists. This information is in the form of artifact collections, documented prehistoric site locations, and a variety of publications. Research in analogous settings in the state has indicated that such locations frequently witnessed settlement by prehistoric Native American groups. Based on sites previously recorded in the Cheshire area, archaeologically sensitive portions of the Shoppes at Cheshire project area may contain pre-Contact Native American sites,

including camp sites and resource procurement locations.

Historical Sites. Historical features related to the Farmington Canal have been identified in the Shoppes at Cheshire project area. It is possible that additional historical archaeological resources may exist in the survey area, related to agricultural activities and historical settlement that occurred in the northeast part of Cheshire prior to the twentieth century (Figure 3).

RESULTS OF ASSESSMENT

Assessment of Archaeological Sensitivity in the Survey Area

Likelihood for Native American Sites. Several criteria were considered to assess the likelihood that unrecorded Native American cultural resources are located within the survey area. These include the quantity and nature of previously inventoried sites in the Cheshire area; soil conditions; topography; access to fresh water sources; and degree of previous disturbance.

A significant number of Native American archaeological sites have been recorded in Cheshire and the surrounding towns. Ranging from small campsites to extensive villages, these sites provide evidence of human habitation over the last 10,000 years. The Connecticut archaeological sites files were consulted for the site number designations noted in this report.

Because of the known archaeological record in Cheshire, as well as the presence of well-drained soils, gentle topography, freshwater resources, certain undeveloped and portions of the survey area were attributed High Sensitivity for unrecorded Native American archaeological deposits. These areas are shown in the proposed archaeological survey units (Figure 2).

Likelihood for Historical Sites. Various archival sources were investigated to assess the likelihood that unrecorded historical cultural resources may be located within the survey area. These sources included historical maps and local histories. The land use seen in the survey area over time was guided by patterns of local agriculture, road construction and residential settlement. The construction of the Farmington Canal resulted in archaeological features that have been identified within the project area (Figure 2). An abandoned house exists in the northeast portion of the project area, and a foundation of a possible shed and/or barn is located nearby. These features will be evaluated with subsurface testing is conducted. Additional historical resources related to agricultural activities and rural settlement in northeastern Cheshire prior to the twentieth century may be identified by future testing within the proposed archaeological survey units (Figure 2).

Existing Conditions of Canal-Related Historical Features in the Project Area

Located in the central portion of the project area, the extant earthen fill berm of the Farmington Canal, known as the "Great Fill" rises above the Ten Mile River valley, and passes over a stone culvert that facilitates the flow of the Ten Mile River beneath the berm. Originally, the "Great Fill" berm spanned the valley for a distance of 600 feet and linked the canal to the surrounding uplands above the river. Following heavy rain in April of 2007, portions of the stone culvert collapsed into the Ten Mile River. Emergency repairs to the culvert were completed by the Town of Cheshire in coordination with the Natural Resources Conservation Service, the Army Corps of Engineers, Connecticut Department of Environmental Protection, and the Office of Connecticut State Archaeology, among others. As part of these repairs, a temporary emergency by-pass

channel was constructed through the "Great Fill" berm to provide necessary relief for potential upstream flooding that would occur should the culvert collapse completely. These recent excavations were undertaken in the interest of public safety by the Town of Cheshire. The result of these machine excavations was the removal of a portion of the northern half of the canal berm within the project area. In addition to this recent emergency work, past sand and gravel mining in the central portion of the project area has eliminated the portion of the canal that once existed south of the river valley. Much of the removal of sand and gravel in this location was apparently done during construction of I-691.

Removal of the northern half of the canal berm, which acted as a dam, down to the elevation of the river has created a broad channel that allows floodwater to flow through the valley north of the river, therefore avoiding flooding potentially caused by a culvert collapse or an extreme weather event. A length of the canal berm approximately 400 feet long has been removed to create the flood channel north of the Ten Mile River. The volume of soil removed from the canal berm has been placed in a former sand and gravel quarry that occupies the central portion of the project area, west of the Ten Mile River.

Between the recently excavated flood channel, and north of the Ten Mile River culvert there is a remnant of the canal berm and channel that is approximately 100 feet long, which is somewhat intact and in fair condition (Figure 2). This section of the canal and berm is discernable with the canal banks, towpath and the slopes of the canal berm largely intact. However, the floor of the canal bed has been cut by bulldozing to a depth of an additional 2 feet during the recent repairs to the Ten Mile River culvert. This northern section of the remnant canal and fill berm is the best location to record observations and measurements on the canal for use in re-creating sections of the canal as planned on the project site. At this location, the base of the fill berm measures 160 feet in width and its slopes rise approximately 65 feet above the floor of the river valley to the top of the canal banks. The top of the canal bank on the western side of the channel is 9 feet wide, and probably served as the canal towpath across the berm. By comparison, the top of the eastern canal bank is only 5 feet wide. The canal channel is 44 feet wide, as measured between the top edges of the banks. As mentioned above, this section of the canal has recently sustained impacts from bulldozing, and the machinery cut into the floor and walls of the canal. However, the floor of the canal channel was approximately 26 feet wide. The bulldozer cut along the floor of the canal is 2 feet deep, but the original depth of the canal would have been approximately 4 feet. The slopes of the canal berm are currently vegetated with hardwoods that include mature oak trees.

A 200-foot section of the canal berm directly above the stone culvert also has been impacted by the recent efforts to repair the culvert. It appears that a portion of the berm above the stone culvert has been removed in order to expose the collapsing culvert for repair. After the culvert repairs were completed, an earthen fill berm was built up over the culvert to a height that nearly attains the same elevation as the remnant sections of the canal that exist to the north and south.

South of the Ten Mile River culvert there is a 250-foot section of the canal and earthen berm. This extant southern section of the canal is presently in less than fair condition; however, the canal banks, towpath and the slopes of the canal berm are discernable. The canal bed appears to have been utilized for heavy machinery access associated with a large sand and gravel quarry. As mentioned above, south of this section,

the quarry activity has eliminated the extension of the canal route that led to the south. The banks of the canal have been breached by bulldozing in several locations, and recent motorcycle and ATV trails crisscross the banks and slopes.

The historic stone culvert that carries the channel of the Ten Mile River beneath the berm has an arched ceiling that is constructed of cut stone blocks. The headwall of the culvert measures 50 feet in length, and is 16 feet in height above the riverbed. The arch of the culvert measures 12 feet in height, and is 15 feet wide. Timbers that lie across the riverbed beneath the culvert may have been placed there as bracing across the base of the culvert, either during its construction or during a subsequent repair episode.

Archaeological Sensitivity Findings and Proposed Survey Units

Based on environmental factors, background research, and field reconnaissance, the archaeological sensitivity of the 107-acre Shoppes at Cheshire project area was assessed. The project area contains extensive zones that have been previously disturbed, or otherwise exhibit low potential to contain sites due to steep slopes or stony conditions. The extant historical features related to the Farmington Canal are described above. Three proposed survey units for future archaeological testing have been designated as a result of the Phase 1A assessment survey. These survey units are located mainly along the relatively undisturbed natural terrace landforms that are adjacent to the banks and wetlands of the Ten Mile River:

Survey Unit 1. Survey Unit 1 is located in the northeastern quadrant of the project area, along the terraces and hills above the eastern side of Ten Mile River and east of the Farmington Canal. The survey unit measures 1,200 feet from north to south, and 800 feet from east to west. Survey Unit 1 is bordered to the south by the large sand and gravel quarry, to the east and north by residential and commercial properties along Highland Avenue, and to the west by Ten Mile River. The terraces and hills are well drained and forested with mature hardwoods, including oaks and pines, with a network of trails.

A trail across a low hill in the northern third of Survey Unit 1 was observed to have a large amount of broken marine shells scattered across the ground surface, and a possible historic road cut was observed across the northern side of the hill leading from east to west down to the river. According to a 1951 aerial photograph of the project area, the northern edge of a small, square agricultural plot was located where this possible road cut is visible. It is likely that the possible road cut was associated with agricultural activities that occurred in this vicinity during and prior to the mid-twentieth century. An erosion gully in the southwestern corner of the survey unit, just east of the intact berm of the Farmington Canal, may also have been a historical road cut leading down to the river. The 1951 aerial photograph indicates that a dirt road or trail was located at this same location; the trail is not visible in later aerial photographs.

Some areas within Survey Unit 1 appear to have been previously disturbed. These include an overgrown clearing in the central portion of the survey unit that appears to have been stripped to acquire sand and gravel, and a modern trash dump located along a high terrace above the river in the southwestern portion of the survey unit.

Undisturbed areas within Survey Unit 1 have a high potential to contain pre-Contact

Native American archaeological resources and/or European-American historic archaeological resources. It is recommended that 70 Phase 1B shovel test pits be excavated to test Survey Unit 1.

Survey Unit 2. Survey Unit 2 is located in the south-central portion of the project area, along a well-drained terrace above the eastern side of Ten Mile River and its wetlands. The survey unit measures 600 feet from north to south, and 160 feet from east to west. Survey Unit 2 is in a stand of mature white pines, bordered to the east by the large sand and gravel quarry, to the west and north by Ten Mile River and its wetlands, and to the south by Interstate 691. During the reconnaissance survey, a shard of nineteenth century salt-glazed stoneware was noted on the ground surface in the northern third of Survey Unit 2.

Survey Unit 2 has a high potential to contain pre-Contact Native American archaeological sites and/or European-American historical archaeological sites. It is recommended that 40 shovel test pits be excavated in this survey unit.

Survey Unit 3. Survey Unit 3 is located in the north-central portion of the project area, above the western side of Ten Mile River and east of the Farmington Canal. The survey unit encompasses terraces to the north and south of the mouth of an unnamed tributary stream of the Ten Mile River. The survey unit measures 500 feet from north to south and 450 feet from east to west along the unnamed stream. Survey Unit 3 is bordered to the north by the Cheshire-Southington town line, to the east by Ten Mile River, to the west by disturbances from the recent flood channel excavations, and to the south by low, poorly drained woods. South of the unnamed stream, the terrace is forested with mature hardwoods, while to the north of the stream the natural terrace is an overgrown agricultural field with dense brush.

Survey Unit 3 has a high potential to contain pre-Contact Native American archaeological sites and/or European-American historical archaeological sites. It is recommended that 30 shovel test pits be excavated to test this survey unit.

Summary and Recommendations

An archaeological Phase 1A assessment survey was completed for the 107-acre Shoppes at Cheshire development. Extensive zones of previous disturbance or low site potential were identified, where the potential of finding intact archaeological sites is low. No additional survey is recommended for those areas.

The central portion of the project area contains a large earthen berm containing a segment of the nineteenth-century Farmington Canal, and a stone masonry culvert, also related to the canal. Although these canal resources have incurred impacts due to flooding, erosion, vehicular access, and emergency culvert repairs, portions of the canal-related features retain integrity and significance, and are contributing elements to the eligibility of the Farmington Canal for listing in the National Register of Historic Places. The project proponent proposes to re-build and rehabilitate the canal, and to create a paved pedestrian trail along the path of its former route. The proponent has indicated that interpretive signage and a small visitor's center, or kiosk, will be installed in order to provide historical information about the history of the Farmington Canal and the "Great Fill" to members of the public who may visit The Shoppes at Cheshire. Public access to this portion of the canal is not currently available, nor should it be encouraged because of continuing public safety concerns. The proponent's commitment to incorporate this feature into The Shoppes at Cheshire and to share the history of this area with the public is commendable and will provide a valuable historical, cultural, and educational amenity for the citizens of Cheshire. Rehabilitation of the canal and installation of an educational component should be encouraged and is recommended.

Three zones in the central and eastern portions of the project area contain minimally disturbed landforms that have a high potential to contain unrecorded Native American and/or historical archaeological sites. In addition a house and outbuilding foundation remains exist in the northeastern portion of the project area. These areas require subsurface archaeological testing. If the project moves forward, in support of the state and federal process for cultural resource management and regulatory compliance, it is recommended that a total of 140 shovel test pits be completed in an archaeological Phase 1B Reconnaissance survey as soon as possible, in order to locate and identify any possibly significant sites that may exist within those survey units.

If any Native American or historical archaeological sites were to be identified by a future Phase 1B survey, this would not prevent the development process from going forward. Rather, it would be necessary first to establish the dimensions and integrity of such resources, in order to determine whether they possess significance and research value and thus meet the criteria of eligibility for listing in the National Register of Historic Places. In the event that any National Register-eligible sites were to be identified, *in situ* avoidance and preservation would be recommended. If avoidance were not feasible, which occurs only rarely, a data recovery program would be recommended prior to the construction phase in order to mitigate the loss of significant information that would be incurred.

Any future archaeological survey will be conducted in consultation with the Connecticut SHPO and will be performed in compliance with state and federal regulations. All artifacts will be analyzed and curated in accordance with standard

practices in the state of Connecticut, and reports presenting the findings of all survey work will be provided to the Town of Cheshire, the project proponent, and all parties and agencies involved with the regulatory compliance process for the proposed development project.

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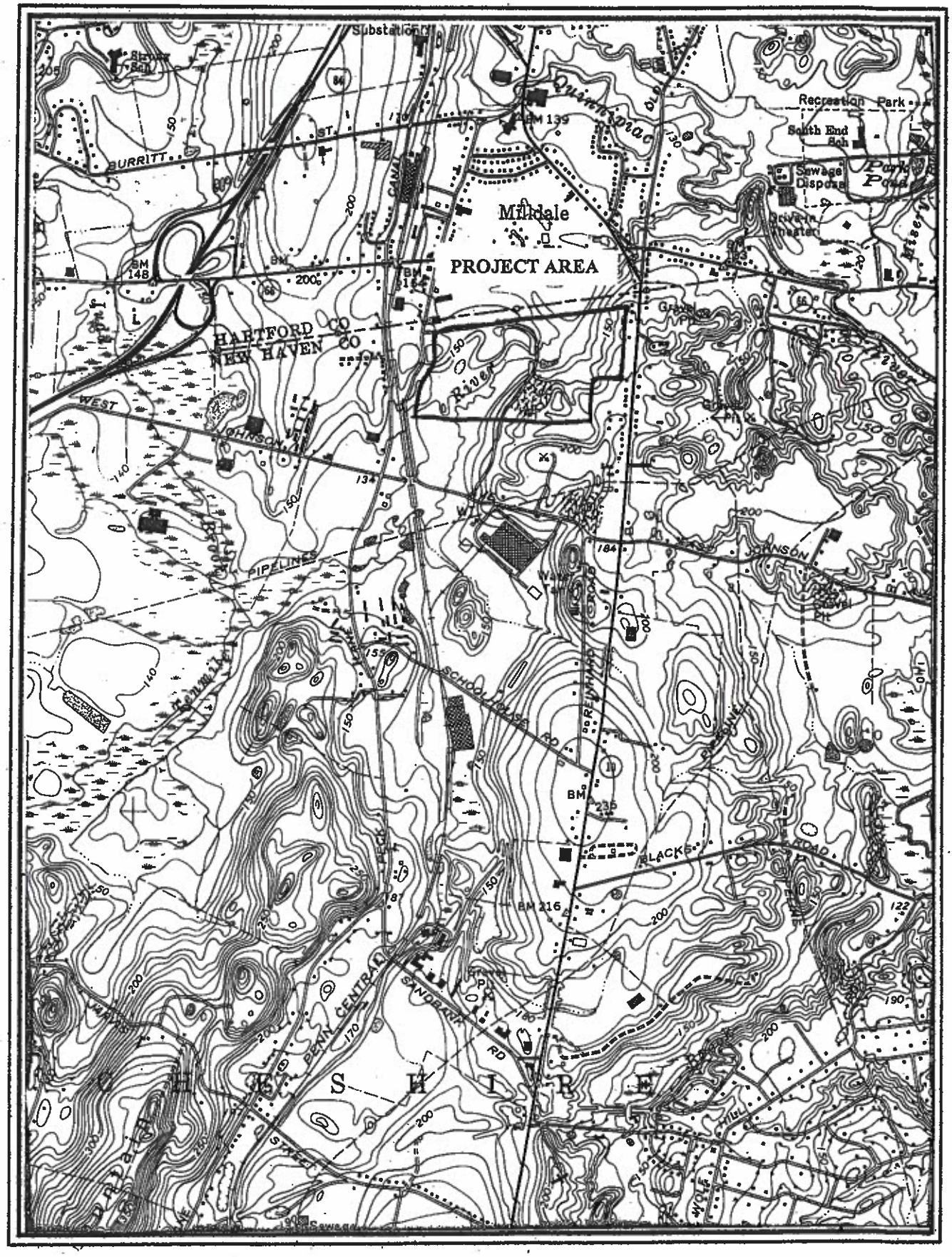

Figure 1. Project area shown on the Southington quadrangle (USGS 1972).

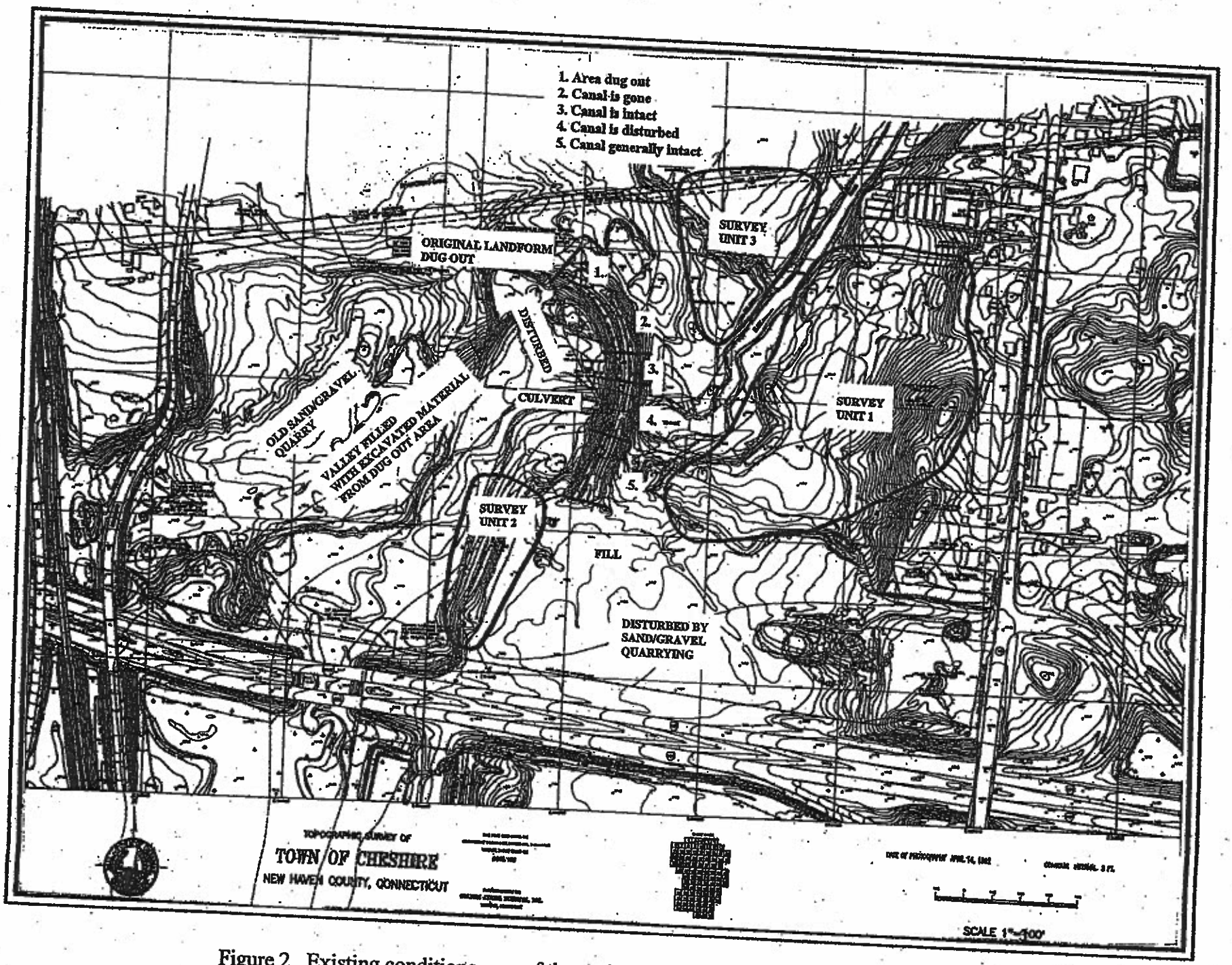

Figure 2. Existing conditions map of the project area, showing the locations of canal-related features and recommended archaeological survey units.

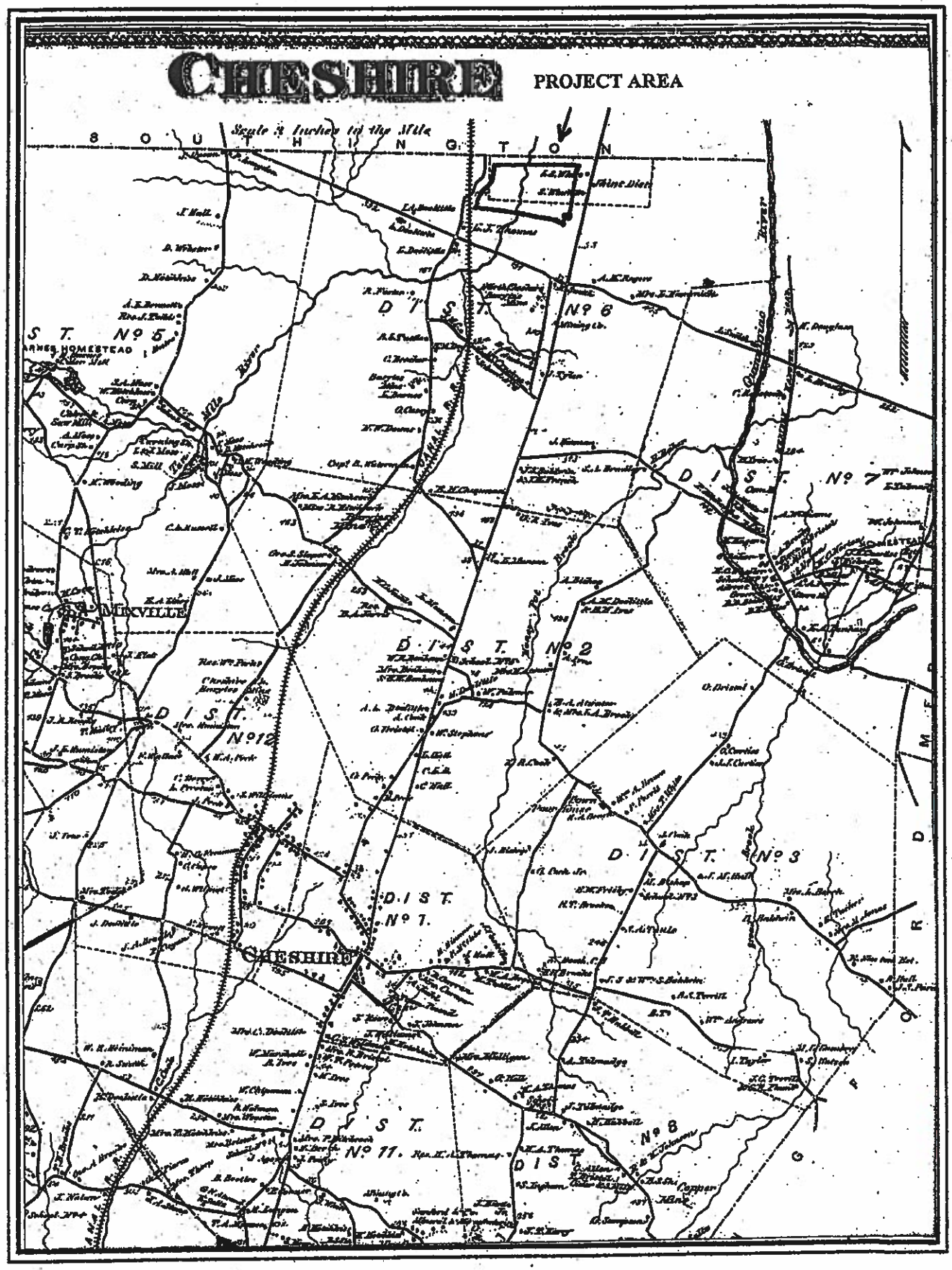

Figure 3. Historical map of Cheshire (1868).