PARSONS ENGINEERING SCIENCE

A UNIT OF PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP INC.

SENECA ARMY DEPOT ACTIVITY

SEAD-59/71 PHASE I ARCHAEOLOGICAL SURVEY

SENECA ARMY DEPOT: ROMULUS, NEW YORK

PREPARED FOR:

SENECA ARMY DEPOT ACTIVITY
ENVIRONMENTAL COMPLIANCE OFFICE
US ARMY CORPS OF ENGINEERS
SENECA AREA OFFICE

SUBMITTED BY:

PARSONS ENGINEERING SCIENCE, INC.

10521 ROSEHAVEN STREET
FAIRFAX, VIRGINIA

JUNE 1998

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Parsons Engineering Science, Inc. • A Unit of Parsons Infrastructure & Technology Group Inc.
10521 Rosehaven Street • Fairfax, Virginia 22030 • (703) 591-7575 • Fax: (703) 591-1305

June 11, 1998

Mr. Tom Enroth
US Army Corps of Engineers
Seneca Area Office
5786 State Route 96
Building 115
Romulus, New York 14541

Re: Final Technical Report
Phase I Archaeological Survey
SEAD-59/71
Seneca Army Depot Activity

Dear Mr. Enroth:

Attached are one unbound copy and two bound copies of the final technical report for the referenced project. No archaeological sites have been recorded in the project vicinity, and no archaeological sites were identified as a result of the survey. Consequently, no further work at these locations is recommended or warranted. In a letter dated May 14, 1998, the New York HPO concurred with these findings and recommendations.

We appreciate the opportunity to work with you on this project. Copies of this report have been sent to Mike Duchesneau in the Boston office. In the meantime if you have any questions or concerns, please do not hesitate to call me at (703) 934-2359.

Sincerely yours,

PARSONS ENGINEERING SCIENCE, INC.

J. Sanderson Stevens

J. Sanderson Stevens
Senior Archaeologist/Principal Investigator

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G:\732\732199\ss8161ja.doc

Attachment

cc: Mike Duchesneau - ES-Boston
Andy Schwartz - ES-Boston

SENECA ARMY DEPOT ACTIVITY

SEAD-59/71 PHASE I ARCHAEOLOGICAL SURVEY
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SUBMITTED BY:

J. SANDERSON STEVENS
JULIE ABELL

PARSONS ENGINEERING SCIENCE, INC.

10521 ROSEHAVEN STREET
FAIRFAX, VIRGINIA

JUNE 1998

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SECTION 1.0

INTRODUCTION

1.1 PURPOSE AND GOALS

The United States Army Corps of Engineers (USACOE) on behalf of the United States Army and the Seneca Army Depot Activity (SEDA) is performing on-going remedial response activities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. An expanded site inspection (ESI) was performed at various locations at the Seneca Army Depot by Parsons Engineering Science, Inc. (Parsons ES) (Boston office) in April of 1995. At locations, SEAD-59 and SEAD-71, the ESI identified that soil and groundwater contaminants exceeded state and federal standards. Because these contaminants may pose a threat to human health and the environment, Parsons ES was contracted to conduct a Remedial Investigation/Feasibility Study (RI/FS) at SEAD-59/71. The remedial work will follow the requirements of the New York State Department of Environmental Conservation (NYSDEC), the US Environmental Protection Agency (EPA) Region II, and the Interagency Agreement. In order to comply with various federal and state regulations and guidelines, including, but not limited to, Army Regulations 420-40, 200-1 and 200-2; the National Environmental Policy Act of 1969, as amended; Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations 36 CFR 800; the Archaeological and Historic Preservation Act of 1974; and other applicable federal and state guidelines, the Cultural Resources Department of Parsons ES (Fairfax office) was contacted to perform a Phase I archaeological survey of SEAD-59/71.

The purpose of the Phase I archaeological survey was to identify archaeological sites within SEADs-59 and 71 and to assess, in a preliminary manner, the National Register eligibility of any sites identified as a result of background research and/or field investigations. Tasks associated with the completion of the archaeological survey included: background research, archival and historical map research, identification of archaeological sensitivity areas, preparation of a research design, field investigations, management recommendations, and report preparation. Following a description of the project area and a discussion of the recent land-use history, subsequent report sections present the following: Environmental Setting (Section 2.0),

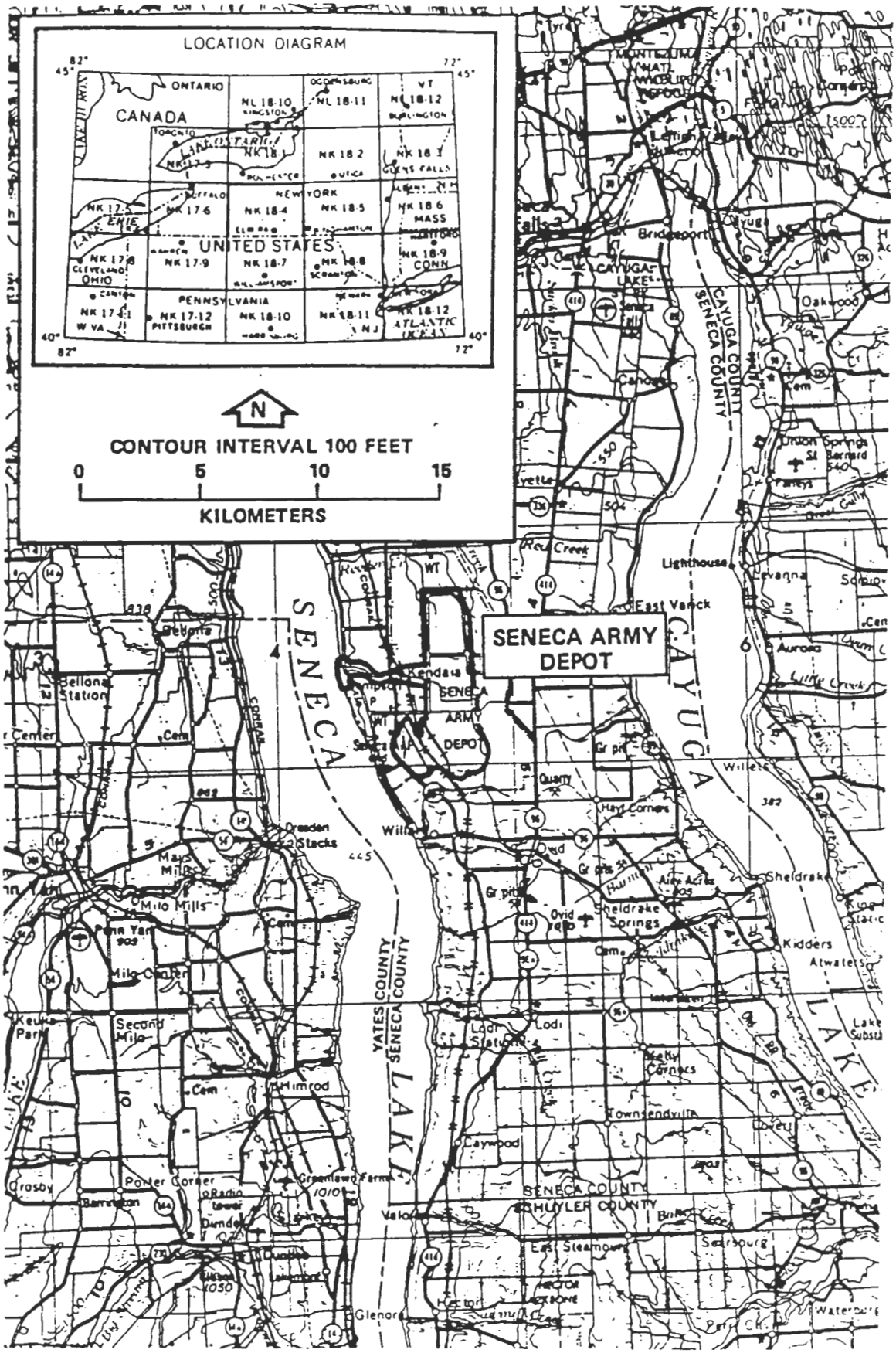
Prehistoric and Historical Context (Section 3.0), Background Research and Sensitivity Assessment (Section 4.0), Field Methodology and Survey Results (Section 5.0), Summary and Management Recommendations (Section 6.0), and References Cited (Section 7.0). T bles, graphics, and plates sufficient to illustrate the text will be included; appendices compl the report.

1.2 DESCRIPTION OF THE PROJECT AREA

The Seneca Army Depot is located near the town of Romulus in Seneca County, New York. Located in the west-central part of the state, the Seneca Army Depot occupies a broad expanse of uplands between Seneca Lake on the west and Cayuga Lake on the east (Figure 1-1). SEAD-59 and SEAD-71 (SEAD-59/71), the focus of this report, represent a 10-acre parcel of land located in the east central corner of the Seneca Amy Depot (Figure 1-2). Historic maps, photographs, and deed research indicate that the land was used as farmland for the production of agricultural crops, fruit, and pasture during the nineteenth and the first half of the twentieth century. Construction of the Seneca Army Depot began in 1941, at which time much of the area was graded, and streams were filled and/or channelized. As part of the on-going remedial investigations and prior to the archaeological survey, SEAD-59/71 was subjected to subsurface exploration (i.e., soil borings and groundwater monitoring) to identify hazardous constituents or wastes that may have been released into the environment.

1.2.1 SEAD-59

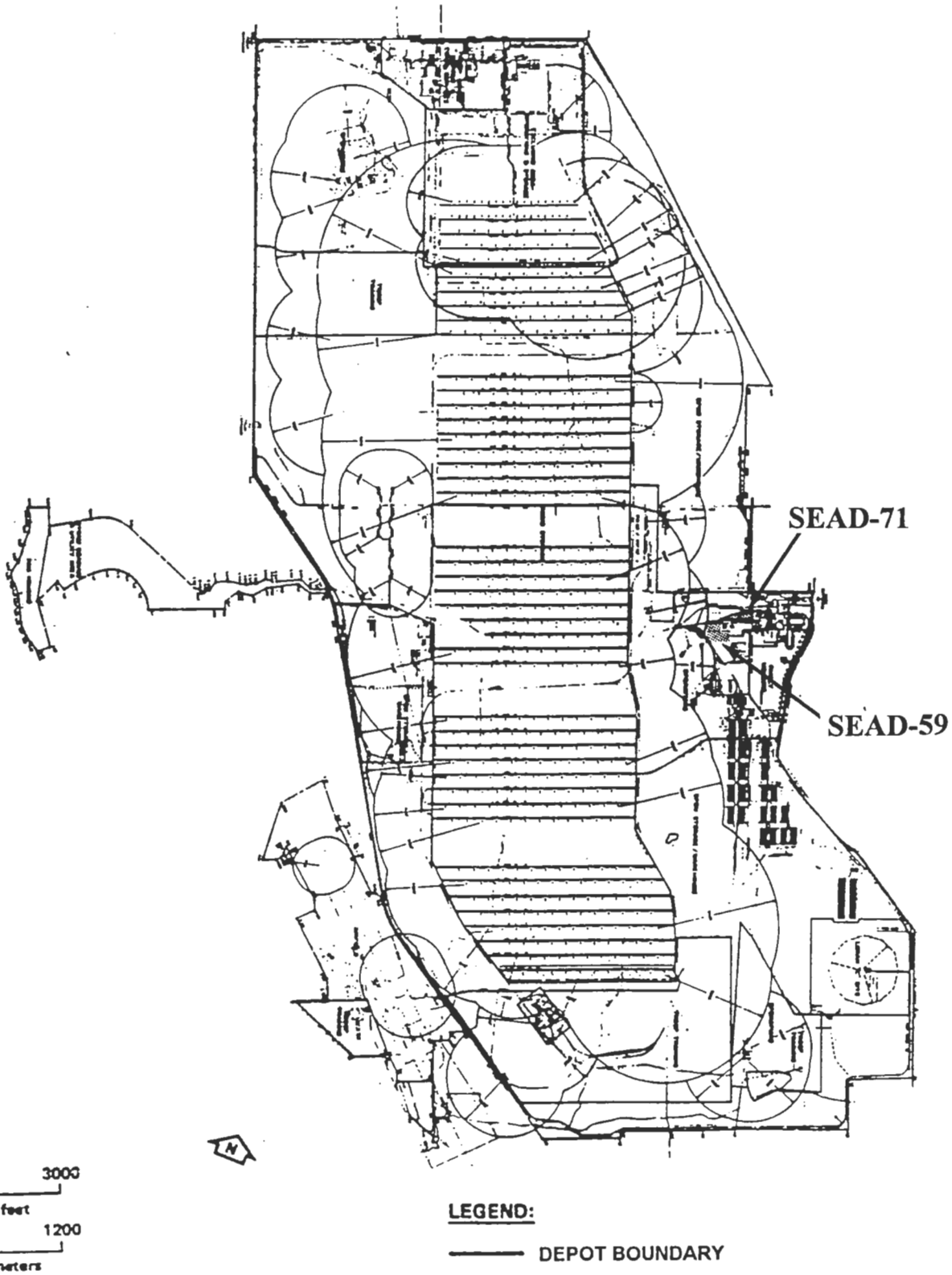
SEAD-59 is a disposal area located within the east-central portion of SEDA (Plate 1-1). This parcel of land was used by the Army as a disposal area and is referred to in the Project Scoping Plan as the Fill Area West of Building 135. SEAD-59, which encompasses the area between Building 128 (on the east) and Building 311 (on the west), is bordered by railroad tracks on the north, a fence and drainage ditch on the west, a man-made drainage ditch on the south, and the limits of the ESI study on the east (Figure 1-3). An unnamed east-west dirt road bisects the northern one-third of SEAD-59. The area north of the unnamed dirt road is approximately 200 feet (ft.) by 400 ft. and contains waste piles of building debris, oily s dge, and other materials (Plate 1-2). The southern half measures approximately 400 ft. by 600 ft. and is covered with vegetation and piles of debris (Plate 1-3). The western half of SEAD-59 is relatively flat with the exception of several waste piles located in the northern corner of the project area (Plate 1-4). Elevation ranges from 730 ft. amsl in the flat areas to ca. 745 ft. on top



Source: Envirosphere Co., 1986

Figure 1-1.
Map Showing Seneca Army
Depot and Finger Lakes Region

Seneca Army Depot, SEAD-59 & 71



Source: Envirosphere Co., 1986

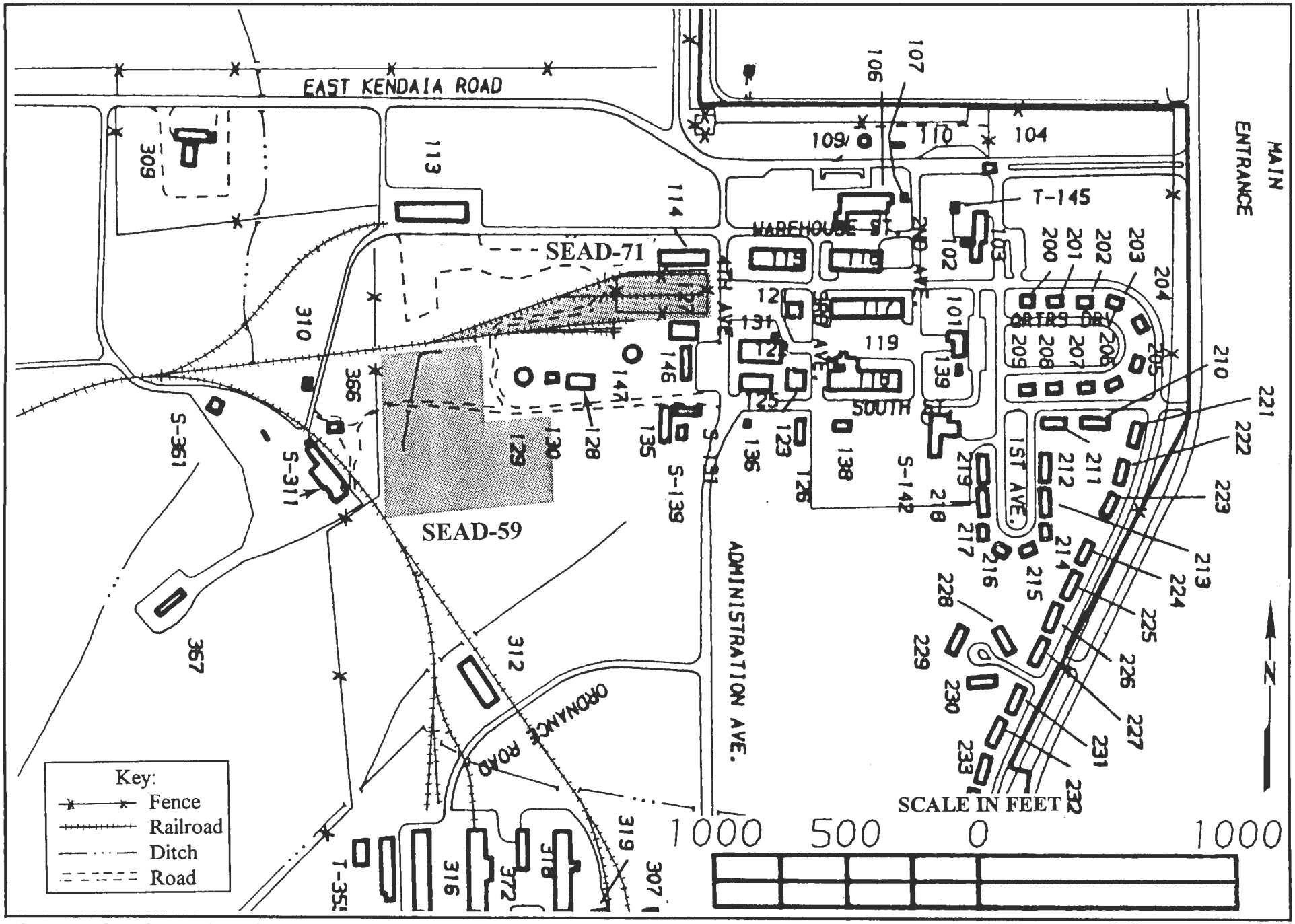
Figure 1-2.
General Map of Seneca Army Depot Showing SEAD-59/71

Seneca Army Depot, SEAD-59 & 71

Plate 1-1. SEAD-59, Overview of Site, Facing Southwest.

Plate 1-2. SEAD-59, North End Disposal Pit, Facing West.

Source: Parsons Engineering Science



Source: STV/Lyon Associates, Inc., April 1996

Figure 1-3.
Detail of Map of Seneca Army Depot Showing SEAD-59/71

Plate 1-3. SEAD-59, Debris Piles on Southeast Side, Facing West.

Plate 1-4. SEAD-59, Surface Debris, Western Half of Project Area, Facing North.

Source: Parsons Engineering Science

of the disposal mounds; the land slopes gently to the west. Historical maps and photographs indicate that former streams have been channelized and subsequently filled, new drainage ditches have been excavated, and much of the landscape has been stripped or graded (Plate 1-1). These grading activities are visible by the presence of subsoil (or decomposed shale) on the surface, disturbed vegetation, and undulating or irregular terrain.

Open fields within SEAD-59 support a variety of grasses, with sedges and cattails growing along drainage ditches and channelized streams. Forested areas in SEAD-59 are dominated by oak, hickory, beech, pine and maple, with an understory of shrubs and grasses or shrubs and thorny vegetation such as greenbriar, wild rose, and berry bushes. An extensive disposal pit and waste piles of building debris and other materials were identified, which affected the archaeological sampling strategy.

1.2.2 SEAD-71

SEAD-71, located in the east-central portion of SEDA, is situated immediately north and east of SEAD-59. The site is located approximately 450 ft. west of 4th Avenue (Figure 1-3). SEAD-71, which measures approximately 450 ft. by 100 ft., is bounded on the north and south by railroad tracks that serve Buildings 114 and 127. A chain-link fence forms the border on the east side of the site (Plate 1-5), and the convergence of the two railroad tracks forms the western boundary. The topography is relatively flat and the land slopes gently to the southwest. The western half of SEAD-71 is a grassy rectangular area that is traversed by an unnamed dirt road and an east-west trending SEDA railroad track (Plate 1-6). The eastern half of the site is a paved rectangular area approximately 150 feet by 70 feet, bounded by chain link fences and by a railroad spur to the north. This area is one of several areas defined by chain-link fences that serve as storage for equipment and miscellaneous supplies. The grassy area to the west is also currently used for storage of railroad materials, and concrete road barriers and other miscellaneous trash heaps.

Plate 1-5. SEAD-71, Eastern Boundary Showing Fence, Facing East.

Plate 1-6. SEAD-71, Unnamed Dirt Road, Facing West.

Source: Parsons Engineering Science

SECTION 2.0

ENVIRONMENTAL SETTING

2.1 GEOLOGY

The Seneca Army Depot (SEAD), located between Seneca Lake on the west and Cayuga Lake on the east in west-central New York, occupies the southern margin of the Erie-Ontario-Mohawk Plain physiographic province (Figure 1-1). Rock formations along the Erie-Ontario-Mohawk Plain range in age from Late Silurian through Devonian. These formations dip gently to the south. As a result of various erosion factors, acting over many millions of years, the older rocks outcrop along a series of east-west trending escarpments across the central part of the state, and the younger formations outcrop further to the south (or are buried beneath many meters of glacial till). The northern margin of the Appalachian Plateau physiographic province lies less than seven miles to the south of SEAD-59 and SEAD-71.

According to the Geologic Map of New York (Rickard and Fisher 1970), SEAD-59 and SEAD-71 are underlain by the Ludlowville Formation of the Hamilton Group. The Ludlowville Formation, which is upper Middle Devonian age, consists of various members including the Deep Run shale, Tichenor limestone, and the Wanakah and Ledyard shale members. Formations within the Hamilton Group (Middle Devonian) record a massive influx of mud and sand that eroded from the newly formed Acadian mountain range to the east during the Acadian Orogeny (Isachsen et al. 1991:101). In many locations within the county, the Ludlowville shale is over 140 feet thick.

Several miles to the north is the Onondaga Escarpment, which forms a dramatic rise above the lower lying Ontario Plain. The Onondaga Group, lower Middle Devonian in age, consists of various limestone members, including the chert-bearing Morehouse and Edgecliff members. Aboriginal populations of central New York (and throughout eastern North America) not only exploited the vast outcrops of Onondaga chert for more than 12,000 years, but they also utilized the numerous caves and rockshelters as habitation sites for a comparable period of

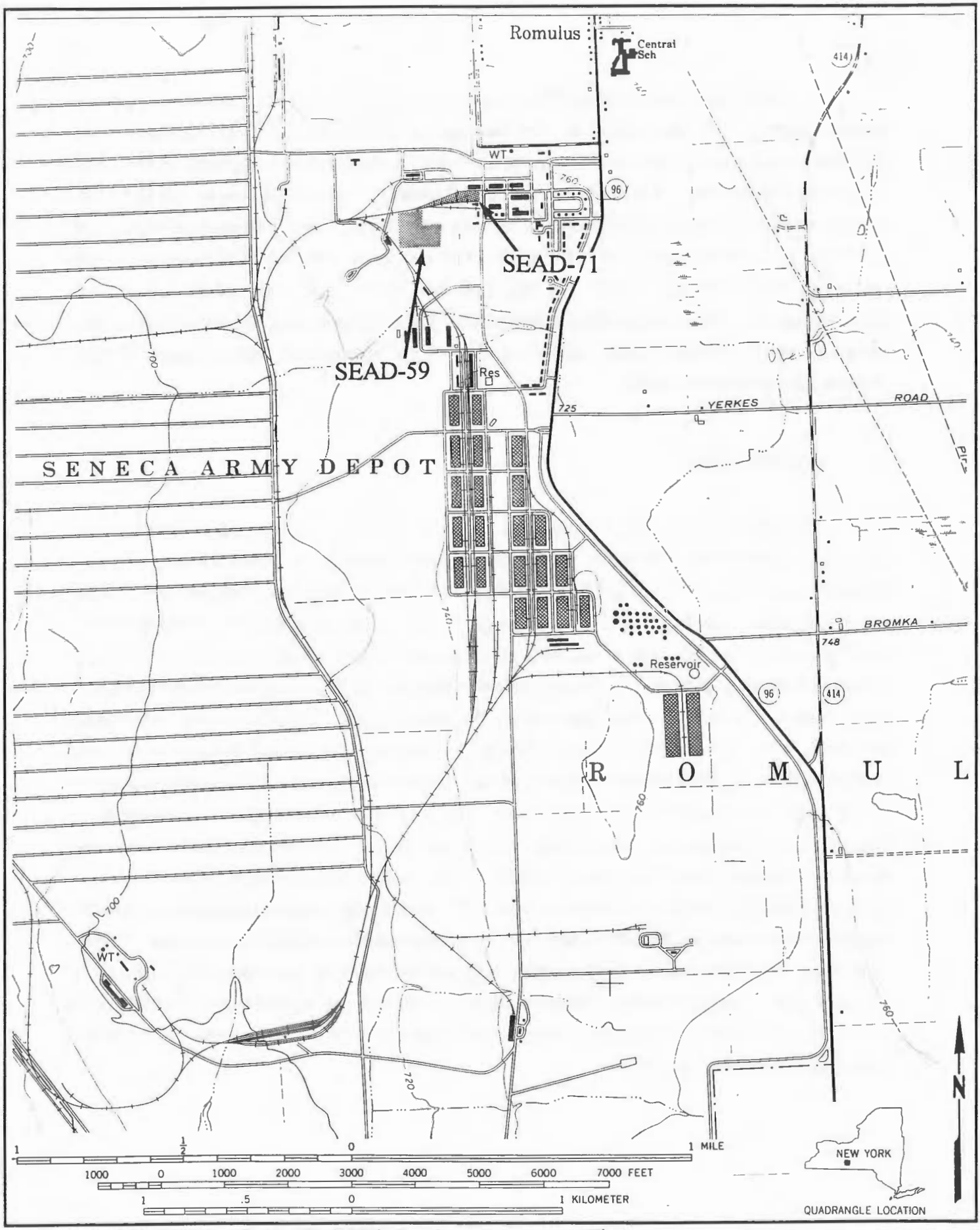
time. Today the Onondaga limestone formation is the most important limestone bed in the state, and it is quarried for a variety of industrial and commercial reasons.

2.2 GEOMORPHOLOGY

The Seneca Army Depot occupies a relatively level till plain between Cayuga Lake on the east and Seneca Lake on the west. Elevation differences range from ca. 700 ft (ft) to 760 ft. in the east-central portion of the depot (Figure 2-1). Within SEAD-59 and SEAD-71, elevation ranges from ca. 730 ft. in the western corner of the study area to ca. 745 ft. in the eastern edge of the area. Surficial deposits in the vicinity of the Seneca Army Depot consist of Wisconsin-aged glacial till overlying bedrock (Mueller and Cadwell 1986). The till at SEAD-59 and SEAD-71 is comprised of poorly sorted clay, silty clay, silty clay loam, cobbles, and decomposed shale fragments. Bedrock is often near or within several meters of the surface. The till, which is generally poorly drained, was deposited beneath glacial ice during the final advance of the Laurentide (Pleistocene) ice sheet, beginning ca. 27,000 years ago. Glacial stagnation features, such as kames and kettles, drumlins, eskers, moraines, etc., are located both north and south of the army depot, but they do not occur within SEAD-59/71. Glacial retreat began around 20,000 to 18,000 years ago, and by 14,000 years ago the Laurentide Ice Sheet had retreated north of the St. Lawrence River.

2.3 SOILS

Soils in the Seneca Army Depot belong to the Darien-Angola soil association. These soils are deep and moderately deep, somewhat poorly drained, and have a silty clay to clay loam subsoil (Hutton 1972: General Soil Map). These medium-lime soils have developed in glacial till that is underlain by calcareous shale. Natural soils within SEAD-59/71 are dominated by Darien silt loam (0 to 3 percent slope) and Darien-Danley-Cazenovia silt loam (3 to 8 percent slope). Darien silt loam soils occupy broad upland expanses and are characterized by somewhat poorly drained to poorly drained soils derived from calcareous shale (Hutton 1972:95). Although the soils are suited to crops, pasture, and forest, planting can be delayed in the spring if the soils are not drained. Darien-Danley-Cazenovia silt loam soils are similar to the Darien series consisting of somewhat poorly drained soils on gently undulating land. Today, most of the surface area of SEAD-59/71 is covered with fill. SEAD-59 contains a number of spoil heaps and SEAD-71 is a railroad mound made entirely from fill material.



Source: USGS 7.5 Min. Ovid, NY (1970) Quadrangle

Seneca Army Depot, SEAD-59 & 71

Figure 2-1.
Detail of Ovid USGS Map (1970)
Showing Location of SEAD-59/71

A typical undisturbed soil profile of Darien silt loam consists of a organically enriched surface layer or root mat, which is very dark gray (10YR3/1 to 2.5Y3/1) silt loam. The underlying plowzone horizon (Ap) is generally 10 to 15 centimeters (cm) in depth and is a dark gray (2.5Y4/1) silt loam. The subsoil (15-50 cm) consists of a dark yellowish brown (2.5Y 4/2) to olive yellow (2.5Y6/6) well developed silty clay loam to clay loam. Decomposed shale with lesser amounts of limestone, sandstone, and/or chert was found with increasing frequency with soil depth. The presence of shale and other rock materials is to be expected in soils derived from glacial till. The well developed structure in the B horizon soils indicates both a long period of soil development and stability as well as the presence of large amounts of clay moving through the soil profile.

2.4 HYDROLOGY

Although Seneca Army Depot lies between the two largest Finger Lakes, both freshwater glacial lakes, the depot area is only drained by three low-order streams: namely Reader Creek, Kendaia Creek, and Kendig Creek. All three streams flow northwest into Seneca Lake and thence into the Seneca River. Reader Creek is located northwest of SEAD-59/71, Kendig Creek is located north of this area, and Kendaia Creek is located due west of the area. Review of historic maps and soil maps indicates that two or three unnamed drainage swales were located within the project area during the historic past. However, today no natural drainages occur within SEAD-59 and SEAD 71. Rather these stream courses have been channelized and/or filled either by Euro-American farmers during the early twentieth century or by the military during the 1940s. Thus, these former stream courses bear no resemblance to their historic counterparts. That is, they exhibit extensive grading along the shoulders and slopes and infilling along the stream channel. Finally, man-made drainage ditches have been excavated along the margins of SEAD-59 and 71. Low-lying areas or depressions typically contain poorly drained soils, which may have supported wetland vegetation in the past. Today these areas have been drained although they may contain water for short periods of time on a seasonal basis. A large wetland, Cranberry Marsh, is located just northwest of SEAD-59 and SEAD-71, and serves to remind us of the former landscape prior to the introduction of Euro-American agricultural practices.

2.5 CLIMATE

Seneca County is dominated by a humid continental climate that is marked by short warm summers and long cold winters. Regional weather patterns are strongly influenced by the proximity of Lake Ontario as air masses move in a northwesterly direction across the Canadian Shield and the Great Lakes area. Temperature extremes range from the upper 80s and low 90s in July and August to -10s and -20s in January and February. Because of the ameliorating effects of Lake Ontario, prolonged periods of extreme temperatures are rare, and the average monthly temperature is ca. 48 to 50. The county averages 160 frost-free days (May to October), and although cloud cover dominates during half of the year (185 days), fogginess is rarely a problem.

Annual precipitation in Seneca County is about 33 inches, which is more or less evenly distributed throughout the year. Because of the "lake effect", winter snowfall is generally heavy and averages more than 53 inches per year. Despite the heavy snow fall for the area and the relatively short growing season, most mid-latitude agricultural crops can be grown in the county without fear of frost or drought.

2.6 FLORAL AND FAUNAL RESOURCES

Native vegetation in the vicinity of the Seneca Army Depot is the Maple-Beech Deciduous Forest type. This forest type is formally dominated by white pine, hemlock, beech, hard maple, and red oak, with secondary dominants consisting of black cherry, hickory, elm, birch, and hophornbeam. In low-lying areas, basswood, ash, white oak, yellow poplar, black walnut, and willow are dominant species, whereas swamp grasses, cattails, sedges, and rushes dominate in marshy areas. Today the climax forest on the depot supports a dense canopy of oak, hickory, beech, and maple with a understory of poison ivy, greenbriar, wild rose, and other viny plants. Most of the area within SEAD-59/71 is dominated by grasses and sapling/shrub growth.

Prior to the arrival of Euro-American settlers in the late-eighteenth and early-nineteenth centuries, Seneca County, like other parts of western New York, supported a large and diverse animal population. White-tail deer, bear, elk, beaver, otter, lynx, timber wolf, rabbit, squirrel, turkey, porcupine, muskrat, woodchuck, and others were found in abundance in the area.

Migratory wildfowl were available seasonally, and a variety of raptors such as hawks and eagles were present as well. Aquatic resources included an abundance of lake and stream fish (e.g., bass, pickerel, pike, trout, drumfish, catfish, bowfin, etc.). Today, many animal species have been extirpated (or are present in small numbers). These species include elk, bear, wolf, lynx, otter, beaver, and porcupine. Conversely, some species such as deer, turkey, woodchuck, rabbit, and squirrel are thriving. Although waterfowl are relatively rare, raptors are common throughout the area.

2.7 RECENT DISTURBANCES

As discussed in Section 1.2, disturbances to the area contained within SEAD-59/71 have been extensive since the Army began construction on the depot in 1941. As documented by historic maps, photographs, and deeds, the land within SEAD-59/71 was used as farmland and pasture land since the Euro-American settlement of the area began in the late eighteenth century (Plate 2-1). After razing farmsteads and outbuildings in 1940-1941, the Army began construction of the depot facility (Plate 2-2). Land modifications in the project vicinity, as a result of construction, included, but were not limited to, the following activities: (1) stream channelization and/or filling; (2) stripping and grading soils along channelized streams; (3) stripping and grading soils for the construction of roads, railroads, bunkers, and buildings; (4) excavation of soils for construction of railroad beds, bunkers and buildings, (5) excavation of soils for purposes of burying various waste products; (6) removal and transportation of soil to encase the bunkers and buildings; (7) draining and filling wetlands and depressions; and (8) excavation of drainage ditches along railroad beds and road beds. All of the above disturbances were easily visible on the ground surface. Some of these areas were known to contain hazardous materials and were avoided both by pedestrian survey and by subsurface testing. Areas that were disturbed but known to lack any hazardous substances were sampled. More detailed maps of modern disturbances within SEAD 59/71 are presented in Section 5.2.

Plate 2-1. Project Vicinity in 1941 Before Construction of Railroad.

Plate 2-2. Project Vicinity in 1941 During Early Construction of Depot.

SECTION 3.0

PREHISTORIC AND HISTORICAL CONTEXT

3.1 PREHISTORIC CONTEXT

The prehistory of central New York follows the same general chronological periods that were devised for much of eastern North America by Griffin (1967). Griffin (1967) divided the prehistoric period into three major stages of cultural adaptation or development: Paleo-Indian, Archaic, and Woodland. These stages were further divided into seven temporal periods as follows: Paleo-Indian (ca. 10,500-8,000 B.C.), Early Archaic (8,000-6,500 B.C.), Middle Archaic (6,500-3,000 B.C.), Late Archaic (3,000-1,000 B.C.), Early Woodland (1,000 B.C.-A.D. 1), Middle Woodland (A.D. 1-1000), and Late Woodland (A.D. 1000-1600). Date ranges for each period are variable across New York and eastern North America. The dates used in this text are derived from Ritchie (1965, 1971); Ritchie and Funk (1973); Funk (1976, 1988); Funk and Rippeteau (1977); and Trubowitz (1983). Many of the type sites used by Ritchie and Funk to define the cultural and chronological sequence for the entire state (and in some cases eastern North America) are located in proximity to the Finger Lakes region and were excavated by members of the Rochester Museum and/or the New York State Museum under the direction of Ritchie and Funk during the first-half of the twentieth century. Some of the more famous sites in the vicinity include Lamoka Lake, Geneva, Oberlander, Frontenac Island, Kipp Island, Plum Point, Hunter's Home, Owasco, Jack's Reef, and Levanna.

3.1.1 Paleo-Indian (10,500-8,000 B.C.)

The Paleo-Indian period represents the earliest well-documented human occupation in North America. With the retreat of the Laurentide ice sheet around 11,000 to 10,000 B.C., central New York became habitable for the first time. The Paleo-Indian period, which minimally dates to the last 12,500 years, corresponds with the Late Glacial and Pre-Boreal climatic episodes. These climatic episodes were characterized by cool, moist summers and long, cold winters. Based on pollen cores from New York and Pennsylvania, the environment during this time may be best characterized as a spruce, fir, pine forest with extensive open grasslands. The finely crafted, fluted Clovis projectile point is the diagnostic point type from this period.

Clovis points and subsequent Paleo-Indian points (such as Dalton/Hardaway point types) are poorly documented in the central portion of New York state. One of the first Paleo-Indian sites to be discovered in New York is the Potts site, located in Oswego County, northeast of the project area. The site produced two Clovis projectile points, a variety of finished bifaces (i.e., knives and point fragments), end and side scrapers, and gravers. All the material was manufactured from western Onondaga chert (Ritchie 1965). Two Paleo-Indian sites in the Genesee River valley to the west have been reviewed by Trubowitz (1983), and the University of Buffalo has recently excavated a site in the extreme western part of the state. Further to the east, several Paleo-Indian sites have been reported by Funk (1976) and Eisenberg (1978) along the middle Hudson Valley (e.g., West Athens Hill, Kings Road) near outcrops of high quality Normanskill chert.

3.1.2 Early Archaic (8,000-6,500 B.C.)

The Early Archaic period roughly corresponds to the Boreal climatic episode. This period was characterized by a cool moist climate which supported a closed boreal forest environment, dominated by spruce, fir, and birch. Pine decreased slightly and deciduous elements such as oak and hazelnut were present. The closed forested environment resulted in a significant reduction in the mammalian carrying capacity (especially for the large migratory herds of caribou); additionally Pleistocene megafauna such as mastodon and mammoth became extinct. Although the reduced carrying capacity undoubtedly contributed to the paucity of Early Archaic sites in New York and New England, several thousand years of upland erosion and lowland deposition have combined to eliminate (upland settings) and/or deeply bury (lowland settings) sites from this time period in New York as well as across much of North America.

Throughout much of eastern North America, the Early Archaic period is characterized by Kirk and Palmer corner-notched and stemmed projectile points. The paucity of these point types from the New York-New England region suggests that some type of cultural hiatus may have occurred in this area during the Early Archaic period. Conversely, Trubowitz (1983:65-66) suggests that the paucity of Early Archaic sites in central and western New York may be related to the archaeologists inability to successfully identify tools from this time period. Regardless of the outcome of this debate, when found, Early Archaic sites are often associated with past (or extant) swamps and wetlands as well as riverine terraces. Subsistence was oriented toward the hunting of deer and elk, while the importance of collecting plant foods

evidently increased. Unlike the Paleo-Indian period, Early Archaic populations primarily focused on exploiting locally available lithic materials.

3.1.3 Middle Archaic (6,500-3,000 B.C.)

The Middle Archaic period is associated with a shift to warmer and drier conditions referred to as the Atlantic climatic episode. The environment during this time was characterized by a oak-hickory-hemlock forest with occasional open areas. As the climate became more arid, many human populations began to intensify their exploitation of wetland environments. The exploitation of various resources in these new environments is witnessed by the introduction of a new toolkit. New tool types include axes, celts, and adzes (all associated with woodworking) and a variety of tools associated with the exploitation or processing of plant resources such as grinding stones, nutting stones, mortars and pestles, etc. The hallmark of the early Middle Archaic period is the bifurcate point, (e.g., St. Albans, Kanawha, and LeCroy points). These points, which are very rare in New York (Funk 1976:233-234), are generally thought to have been introduced into the New York/New England area from the Southeast and Middle Atlantic regions. Middle Archaic occupations in central New York are rare, but more importantly, Middle Archaic points have not been excavated from any sites in the region.

Funk (1976, 1988) notes that a Proto-Laurentian tradition has yet to be identified for central and western New York. The paucity of information from this part of the state during the Early and Middle Archaic periods, suggests that environmental conditions were not conducive to more extensive and prolonged occupations (as witnessed during the subsequent Brewerton and Lamoka phases). These data suggest that environmental conditions were not favorable for human occupation in this part of the state until after 4,000 B.C. Paleoenvironmental data from New York, Pennsylvania, and Ontario tend to corroborate this interpretation. Middle Archaic settlement/subsistence systems reflect the exploitation of diverse resource zones. That is, for the first time, sites appear to be located in all major environmental zones. Site types include semi-permanent riverine base camps; semi-permanent base camps along interior streams or wetlands; special purpose camps in uplands, adjacent to wetlands, and/or in mountain saddles; quarry and quarry related workshops adjacent to lithic outcrops; and rockshelters.

3.1.4 Late Archaic (3,000-1,000 B.C.)

The Late Archaic period is characterized by the proliferation of various cultural groups throughout the area. Unlike the preceding Early and Middle Archaic periods, the Late Archaic period is represented by several cultural traditions, including from oldest to youngest Laurentian (Brewerton), Narrow Point (Lamoka), and Broadspear (Snook Kill, Susquehanna, and Perkiomen). The earliest manifestation of the Late Archaic period in the New York-New England area includes various points of the Laurentian tradition, such as the Brewerton varieties (side-notched, eared, and corner-notched), Vergennes (Otter Creek), and Vosburg point types, and Beekman triangular points. The Laurentian tradition, which reflects a hunting adaptation to a boreal forest environment, is ubiquitous across New York state and New England beginning ca. 3,000 B.C. or slightly earlier (Ritchie 1965; Funk 1988).

In his recent work discussing the temporal relationship between the Brewerton and Lamoka traditions, Funk (1988), reversing Ritchie's (1965) long held opinion, argues convincingly that Brewerton occupations actually precede Lamoka occupations in central and western New York. Although, stratigraphic evidence of the Brewerton-Lamoka sequence has not been identified in central and western New York, Funk (1976, 1988) has documented this sequence in eastern and southeastern New York. Current evidence suggests that both the Laurentian tradition (Brewerton-Vergennes- Vosburg) and the Narrow Point tradition (Lamoka-Sylvan Lake-Normanskill) represent Late Archaic manifestations, with the Brewerton phase beginning around 3,200 B.C. (or possibly a few centuries earlier) and the Lamoka phase beginning around 2,500 B.C. Unlike the Laurentian tradition, which appears to be a regional development from the Boreal Forest zone (Snow 1980), the Narrow Point tradition (also referred to as the Piedmont tradition) is generally thought to be derived from cultural groups in the Southeast and Middle Atlantic regions. Lamoka points (ca. 2,500 B.C.) are defined as small, narrow, thick points with sloping shoulders, a straight stem, and an unfinished base (Ritchie 1971). The core area of the Lamoka complex is the lake region of central and western New York.

Campsites of the Lamoka tradition are located along lakeshores and major streams with specialized processing and foraging camps located along minor streams. Deep midden deposits indicate a subsistence system based on the exploitation of various fish resources and mast products, while hunting and collecting played a more supportive role.

The second half of the Late Archaic period is characterized by the Broadspear or Susquehanna tradition. This tradition is defined on the basis of various broad spears (e.g., Snook Kill, Susquehanna, Batten Kill, and Perkiomen) and other point types as well as the appearance of steatite vessels near the end of the period. Compared to the cultural sequence of eastern New York, central New York experiences somewhat of a cultural hiatus between the Lamoka phase and the Broadspear tradition. That is, the Lamoka phase (ca. 2,700-1,700 B.C.) appears to continue for several centuries longer in central New York than in eastern New York, where it (Lamoka) is replaced by the River phase (Normanskill) by ca. 2000 B.C. (Stevens 1995). In central New York, the settlement data and artifact assemblages indicate that subsistence practices of the Susquehanna tradition were more focused on the exploitation of riverine resources. The presence of steatite vessels may suggest participation in a far reaching (i.e., pan eastern North America) exchange network.

3.1.5 Early Woodland (1,000 B.C.-A.D. 1)

The Woodland stage, like the Archaic stage, is divided into three subperiods (Early, Middle, and Late). The Woodland period is defined on the basis of the introduction of ceramic vessels, more sedentary lifestyles, and the introduction of agriculture. Early Woodland ceramics (ca. 1000 B.C. - A.D. 1), called Vinette I, are similar to other ceramic types from the Chesapeake and Tidewater regions of Virginia northward into New York. These early ceramics are characterized by relatively thick, cord-marked sherds with crushed quartz and/or grit for temper. In central New York, the initial Early Woodland period is referred to as the Frost Island phase (1250 to 870 B.C.). The type site is the O'Neil site on the Seneca River. Surface manifestations of this phase are relatively abundant in central New York. Sites from this time period reflect a cultural continuity with the preceding Susquehanna sites. Toward the end of the Frost Island phase, ceramic vessels replace the steatite containers of the preceding period.

The Meadowood phase (ca. 900-700 B.C.) represents the first widespread and well documented Woodland phase in central New York. Significant sites from this period in the project vicinity include Vinette and Oberlander, northeast of the depot, and the Wray site along the Genesee River to the west. Meadowood points and Vinette pottery are the major diagnostics of this phase. Site types consist of campsites (both large and small) and cemeteries, and settlement and subsistence data reflect a riverine and lacustrine orientation, which Ritchie and Funk speculate was triggered by increased sedentism and the intensive collection of plants.

The subsequent Middlesex phase is undated and is only represented by burials and burial mounds. Grave goods from Middlesex burials include Adena points, Vinette ceramics, red ochre, mica, or other exotics. Trubowitz (1983) asserts that the Middlesex phas ost likely represents the adaptation of mortuary practices and the acquisition of trade good .g., Adena points from Ohio cherts) by Meadowood people, rather than an actual migra n of Adena people from the upper Ohio valley.

3.1.6 Middle Woodland (A.D. 1-1000)

The early Middle Woodland period in western and central New York (ca. A.D. 1 - 1000) is represented by the Point Peninsula tradition. The Point Peninsula tradition is comprised of four phases, from earliest to youngest, these are: Canoe Point, Squawkie Hill, Kipp Island, and Hunter's Home. Vinette 2 ceramics typify the early part of the period. Unlike the cord-marked Vinette 1 ceramics, Vinette 2 ceramics exhibit plain surfaces, but decorative motifs, such as dentate-stamping and rocker-stamping, are common.. Vessel size increases dramatically by the end of the period, and is likely associated with the increase in sedentism and the introduction of agriculture after A.D. 800.

Burial practices during the first half of the period reflect affinities to the Hopewell tradition in Ohio. Ritchie and Funk (1973) suggest that the absence of an agriculturally based economy did not permit the peoples of the Canoe Point and Squawkie Hill phases to generate the food surplus necessary to sustain the elaborate social structure involving burial mounds, elaborate rituals, and social stratification. However, during the Kipp Island (A.D. 300-900) and Hunter's Home (A.D. 800-1000) phases, an agricultural economy may have been introduced into the area (although maize has not yet been recovered or identified from and undisturbed context). The type sites for the aforementioned phases, as well as the type site for the Jack's Reef ceramic wares and projectile points and the Levanna ceramics and point type are located in the vicinity of the Seneca Army Depot, near Cayuga Lake.

3.1.7 Late Woodland (A.D. 1000-1600)

The Late Woodland period is characterized by the introduction and widespread acceptance of an agricultural lifestyle based on the production of maize, squash, and beans. As settlements became more sedentary and population grew, small hamlets gave way to palisaded villages. Traditionally, Ritchie and Funk (1973) have argued that the Hunter's Home phase of

the Point Peninsula tradition evolved into the Owasco tradition, which in turn evolved into the proto-historic and historic Iroquois. Recently, Snow (1995:59-79) has challenged this linear cultural continuity. Snow (1995) argues that the roots of the Owasco tradition are not to be found in the indigenous Hunter's Home phase, but rather they are to be found in the Clemson Island tradition of central Pennsylvania. Snow (1995) maintains that Clemson Island people, migrating northward from Pennsylvania, represent the introduction of the Iroquois speakers into central New York. This hypothesis, while very intriguing, has not yet achieved widespread acceptance.

The earliest phase of the Owasco tradition is the Carpenter Brook phase (A.D. 1000-1125), followed by the Canandaigua phase (A.D. 1125-1200). The Carpenter Brook phase is characterized by the use of maize, beans, and squash, and settlement data indicate small, unfortified hamlets. During the subsequent Canandaigua phase, palisaded villages first appear. The Castle Creek phase (A.D. 1200-1400) is similar to the preceding Canandaigua phase, but human effigies begin to appear on pots and pipes for the first time. The earliest documented Iroquois tradition begins with the Oak Hill phase, which dates from A.D. 1300-1400. The Oak Hill phase is characterized by the introduction of the longhouse architectural style, suggesting the development of a matrilineal kinship system that persists today among the Iroquois. The final phase, the Chance phase (A.D. 1400-1500), is largely similar to the Oak Hill phase except that there is a shift from cord-impressed wares to incised wares (Ritchie and Funk 1973). Iroquoian villages in the Seneca-Cayuga area, during the Oak Hill and Chance phases, were less heavily fortified than counterparts to the east along the Mohawk drainage. Ritchie and Funk (1973:167) conclude that in all material aspects (e.g., ceramic styles, house and village patterns, burial practices, skeletal remains, subsistence data, etc.) the Owasco tradition shows a tremendous degree of continuity both throughout the Late Woodland period but also with the subsequent Iroquoian culture of the early historic period

3.1.8 Proto-historic (A.D. 1600-1750s)

The Iroquois Confederacy (or the Five Nations of the Iroquois) is believed to have formed sometime between 1450 and 1630. Objectives of the confederacy included mediating disputes between member groups and presenting a unified front and policy to outsiders. The confederacy may have been formed as a defensive response to Algonquian incursions into Iroquoian territory following European contact with the Algonquian groups along the St. Lawrence River in the mid-1500s. The original Iroquois Confederacy was formed by the

Oneida, Onondaga, Mohawk, Cayuga, and Seneca. The later two groups were active in the project vicinity from the late prehistoric period and into the second half of the eighteenth century. In fact the Seneca were known as the "Keepers of the Western Door", referring the geographic location of the Seneca compared to the other groups within the confederacy he cultural/historical sequence for the Seneca, as described above, was delineated by a num · of archaeologists working with the Rochester Museum of Arts and Sciences and the New ·ork State Museum during the 1920s through the 1970s. Contributors to the body of knowledge concerning Iroquoian prehistory and history include Parker (1918, 1920, 1926); Wray (1973); Ritchie (1944, 1961, 1965); Hayes (1967); Funk (1967), Tooker (1967) and others.

At the time of European contact, Iroquois groups lived in hamlets or villages, often stockaded, and practiced a mixed economy based on the cultivation of maize, squash, and beans and supplemented by hunting, fishing, and plant collecting. With the intensification of European contact and the ever-increasing demands of the fur trade, rival Algonquian groups and Hurons (Iroquoian speakers from the Great Lakes area of Ontario) began to clash with the Iroquois over control of the fur trade. The French began the fur trade with earnest in the early 1600s, and the Dutch established a trading post at Fort Orange near Albany in 1623. With access to European weapons and trade goods, the Iroquois were able to halt the southward expansion of the French and their Indian allies (e.g., the Huron). Between King William's War (1689-1697) and the end of the French and Indian War in 1760, the Iroquois skillfully played off the British against the French on numerous occasions. Unfortunately, the Iroquois were squeezed between the French on the west at Fort Niagara and the British on the east at Fort Oswego, both of whom sought their political alliance and trade. In the end, the Iroquois allied themselves with the British against the French in the French and Indian War (1754-1760).

To the extent possible, Iroquoian settlement patterns and subsistence practices remained similar to those during the Late Woodland period. Longhouses tended to increase in size during the later half of the proto-historic period as nucleation intensified in the face of disease, warfare, and spatial compassion. However, the matrilineal-based clan system continued to form the basis of the socio-political system throughout this period. Villages generally shifted when the agricultural soils became depleted, but with population pressures mounting from all directions during the seventeenth and eighteenth centuries, relocating villages became more of a problem for the Iroquois. Fortunately, the Iroquois Confederacy allowed flexibility in the movement and location of villages depending on political circumstances.

3.2 HISTORIC CONTEXT

3.2.1 General History of the Area

Following the French and Indian War, control of the Finger Lakes region remained with the Iroquois, although there was mounting pressure from Europeans to open the area up for settlement. Despite passage of the Proclamation of 1763, which forbade future taking of Iroquois lands by European settlers and ejected those migrants who had already put down roots, and the Treaty of Fort Stanwix in 1768 which confirmed Native American ownership of the area but revoking title to their Ohio Valley lands, European squatter settlements increased throughout the area. Without French support, the Iroquois were unable to halt the spread of new European settlement (Billington and Ridge 1982).

When the Revolutionary War broke out, the Six Nations of the Iroquois (which now included the Tuscaroras, who had joined in the 1720s) claimed neutrality, but by 1777 all groups but the Oneida and Tuscaroras had allied themselves with the British, effectively breaking up the League. During the early years of the war, most of the hostilities occurred within the Mohawk River Valley, east of the Finger Lakes region. The Iroquois began as lesser participants in the war, forming small raiding parties that seized or destroyed colonial property along the Mohawk and captured or killed only armed resisters, but by 1778 they, along with the British, were destroying larger areas and settlements with little or no regard for innocent, unarmed occupants of the region. As a punitive measure, General Washington executed several counterattacks during the summer of 1779 in which raiding Continental forces drove deep into Iroquois territory, destroying Native American villages and taking indiscriminate numbers of prisoners, including women, children, and the elderly.

General John Sullivan commanded the raiding force invading the area that would later become Seneca County. After defeating a surprised group of Tories and Native Americans at the village of Newtown (now Elmira), Sullivan's troops marched north, destroying all the extant Indian settlements along the Susquehanna River and its tributaries, plus all the major Cayuga and most of the Seneca villages. They reached the Seneca village of Kendaia, commonly believed to have been located near the boundaries of the Seneca Army Depot and Sampson State Park, in September 1779. Finding the village abandoned by the Native Americans, the rebels proceeded to burn the settlement and destroy the orchards. Accounts written by Sullivan's men indicate that the village contained 20-30 houses, both framed and

bark-covered, as well as numerous apple, peach and plum trees, a burying ground, and cattle, horses and pigs. From Kendaia, Sullivan's forces moved north to Kenadesaga (modern Geneva), and outward to other Native American settlements along Cayuga Lake and near Waterloo, decimating nearly everything in their path. By the end of Sullivan's campaign, 40 towns in the region had been destroyed. Following the destruction of their native homes and villages, a number of defeated Iroquois tribes, including members of the Upper Mohawk, Cayugas, Onondagas, and Senecas, relocated to the Niagara Peninsula vicinity, where they rekindled the League of Nations. Although the Iroquois continued to fight along side the British for the remainder of the war, they never returned to their original homelands. Moreover, through a series of treaties, most notably the Second Fort Stanwix Treaty in 1784, the Iroquois lost legal claim to this region. The last of the treaties (with the Cayugas) was signed in 1789, opening the door for European settlement of the former Iroquois lands (Wallace 1970, McVarish and Cook 1996).

During the 1780s, the land comprising what would become Onondaga, Seneca, Cayuga and Cortland counties, as well as parts of Oswego, Wayne, Schuyler and Tompkins counties, was reserved by the New York state land commissioners for distribution to Revolutionary War veterans. In 1784, Surveyor-General Simon DeWitt authorized surveys of this area to begin. Based upon his love of classical history, he named each of the 28 individual townships after famous Greeks or Romans; three of these townships, Romulus, Ovid, and Junius, were assigned to the area that would later become Seneca County. This vast stretch of land was referred to as the "Military Tract." Within each township, 100 smaller lots were surveyed, consisting of 600 acres each and usually about 1 mile square, and referred to as "Military Lots". Each of the lots was assigned to a war veteran by lottery. Of the 600 acres in each lot, 100 acres in the southeast corner were reserved as state property, and were known as the "State's Hundred." Grantees were required to pay a one-time survey fee to the state within two years of taking possession of the property for use of this land. If the amount of 48 shillings was not paid, half of the 100 acres would be revoked and sold at public auction (Schein 1993, McVarish and Cook 1996).

Most of the Military Lots were not settled by the veterans assigned to them. Due to the long lag-time between the end of the war and 1791, when the lots were first distributed, many veterans had already settled elsewhere and were not willing to move. Although some did relocate to the area, many of the new owners immediately sold their property to land speculators or local settlers who were beginning to migrate into the region. Deed records illustrate the often rapid turnover of property during these early years of regional development,

but this belies actual settlement; much of the land remained vacant until the early nineteenth century.

The towns of Romulus and Ovid were both organized in 1794, although Seneca County was not formed until 1804. In 1794, the area containing Romulus and Ovid was part of the new Onondaga County, which had been carved out of Herkimer County (Herkimer County itself had been formed from a part of Montgomery County in 1791). The first settlers in the vicinity of Romulus came in the late 1780s and early 1790s. Migration continued during the early nineteenth century. Most of the people settling in the region came from New England states, Pennsylvania, New Jersey, and other parts of New York. Many were farmer-mechanics of German and Scots-Irish descent, who grew crops for subsistence and often for sale on the local market, and simultaneously practiced a trade. Regional markets slowly expanded as transportation improved in the region. Pioneer occupations included blacksmiths, carpenters, wheelwrights, and shoemakers, as well as the requisite millers, who established early grist, saw, potash, and distilling mills in the region. In general, people settled in dispersed clusters and on isolated farmsteads. Small communities developed at cross-roads, near mill sites, and along the Seneca and Cayuga lake shores. Some of these early settlements were located at Romulus village, Kendaia village (named after the Indian village of the same name once located two miles to the south), and Ovid village. An early law allowing every landowner a road leading to his property resulted in the grid-like system of country roads marking the edges of the square-shaped military lot divisions. Many of the first settlers bought large pieces of property, sometimes a whole 600-acre lot at a time. However, as they sold parcels off, or divided the land between their children, farms in the area became smaller, generally totaling about 100 acres, which was a more manageable size to administer (McGrane 1975).

Settlement in the Seneca County area remained sparse at first. However, as transportation routes through the area improved, population increased. The Mohawk turnpike was the first major road to link the Finger Lakes region together. In 1794, it was extended from Utica to the Genesee River, and by 1803 it had reached Buffalo, promoting east-west travel along the northern edge of Cayuga and Seneca Lakes, both for settlers coming into the area and as a means to move agricultural and trade goods to market. While many migrants used the thoroughfare chiefly as a way to traverse the area on their route westward, some did stop and purchase lands on which to settle. By the early nineteenth century, the area had become modestly populated, due in part to additional public and private roads that had been completed, such as the Ithaca and Geneva Turnpike (following roughly the same path as State Route 96) in 1810.

Development of farmland within Seneca County continued as new settlers migrated into the region. In 1830, the town of Varick was formed from the northern part of Romulus, creating a more centralized social and administrative center for those people living in that part of the county. During the first half of the nineteenth century, grains and cereals were the primary crops grown in central New York. These included wheat, buckwheat, rye, and hay. However, by about 1840 agricultural competition with other midwestern states caused a decline in cereal production for the region. With improved transportation, such as the Erie Canal, states like Ohio and Illinois were soon able to flood eastern markets with their voluminous grain products, leaving central New York unable to keep pace economically. By mid-century, many local farmers were relocating to the midwest; those that stayed were forced to switch production from cereals to market gardening, cattle raising, or dairying. This economic pattern essentially endured for the remainder of the nineteenth century.

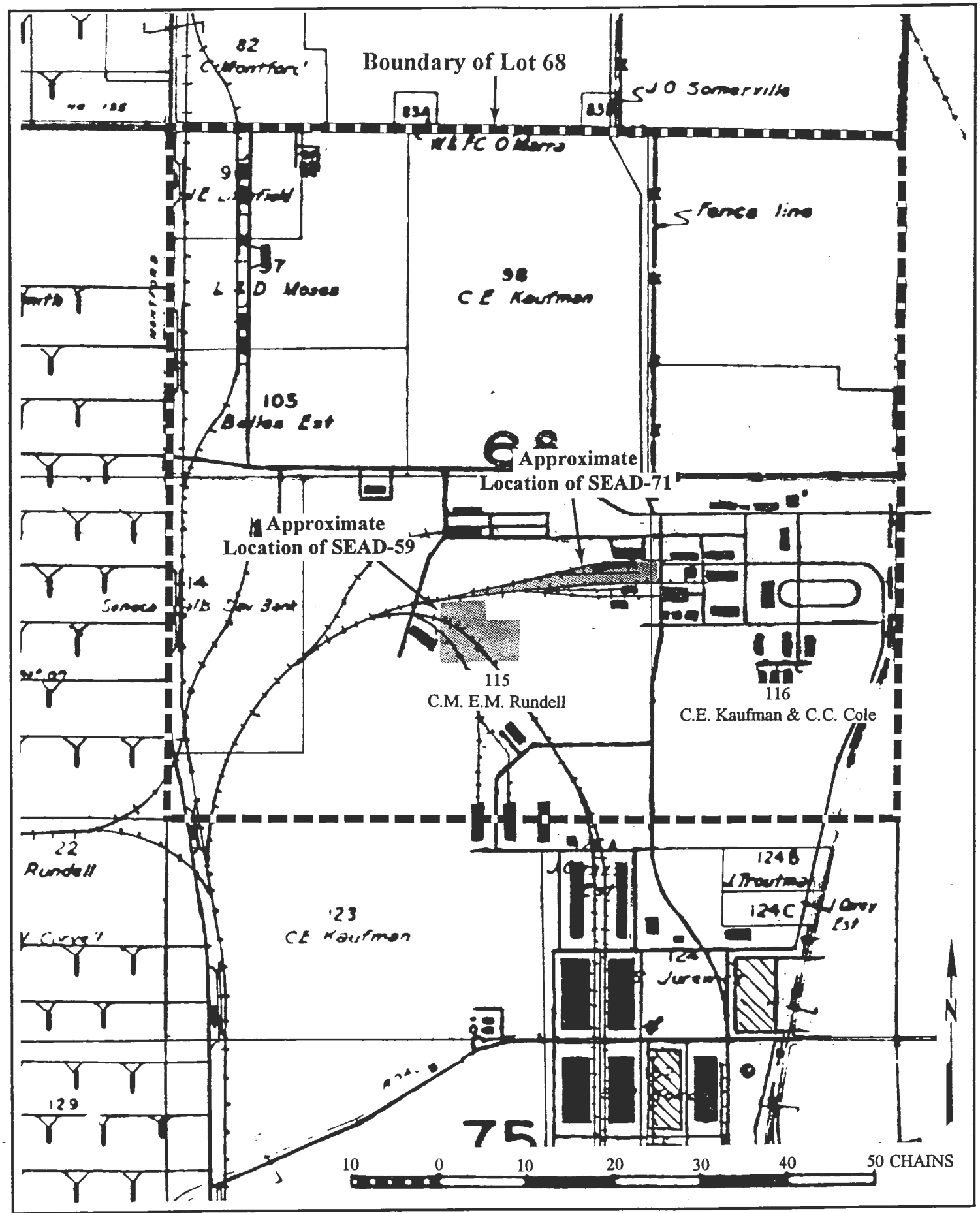
In 1841, the first railroad line -- between Rochester and Syracuse -- was completed in central New York. By 1853, this line had been connected with the New York Central Railroad. With the advent of railroads, farmers in Seneca County could now begin to ship their products to distant markets without suffering undue competition from midwestern states. As railroads became the shipping mode of choice, barge traffic in the region declined. In 1873, the Geneva and Ithaca Railroad was finished, with the linking spike hammered into place at Romulus. For Seneca County farmers and residents, railroad culture during the late nineteenth and early twentieth centuries was a significant factor in their lives and lifestyles (McVarish and Cook 1996).

The area that would become the Seneca Army Depot continued to be used primarily as farmland and pastureland through the mid-twentieth century. Most of the farms were owned and occupied by locally-based families who had lived on the land for several generations. They practiced diversified agricultural activities, including growing grains and vegetables, tending orchards, and raising livestock, mostly dairy cows. Much of their products were for local consumption. To facilitate better crop yields, local farmers in the early twentieth century often installed subterranean ditches in their fields to counteract poor soil drainage (McGrane 1975). Light industry, while not specifically located in the future depot vicinity, accounted for employment of county residents who traveled to Geneva and Seneca Falls to find additional work.

The region changed irrevocably in the 1940s, when the U.S. government selected 11,500 acres of Seneca County farmland in the towns of Romulus and Varick for construction of an army ordnance depot, which began in July 1941. Over 100 families were displaced as a result of the new facility. The owners of the properties were compensated by the government for their land, and given up to one month to vacate their farms. Many chose to have their houses and other structures moved off-base to new locations; those that remained were either razed or partially recycled for their construction materials. Since the 1940s, the Seneca Army Depot has provided employment for many of the local residents. Although most of the surrounding area is still devoted to agricultural pursuits, the depot has afforded continued economic stability during the remainder of the twentieth century (Watrous 1982, Klein 1986).

3.2.2 History of SEAD-59 and SEAD-71

SEAD-59 and SEAD-71 fall within the original 1791 Military Lot 68. Figure 3-1 shows the overlay of the 1940s depot facilities, including the area that would become SEAD-59 and SEAD-71, superimposed on the military lot divisions and arbitrary plat numbers assigned in 1941 when the depot property was purchased from each of the individual owners. Table 3.1 summarizes the property owners for Lot 68, plat 115, which contains both of the SEAD parcels. This information comes from the Seneca County Recorder of Deeds Office, located in Waterloo. Information about occupation of the property prior to 1804, when the records of Seneca County began, is not included in this discussion. However, based upon the limited settlement of the area before that time, it is likely that while the property may have been legally owned by one or more individuals, it is probable that the parcel was not settled or developed.



Source: L.P. Walker, Real Estate Acquisition Division, 1941/1942

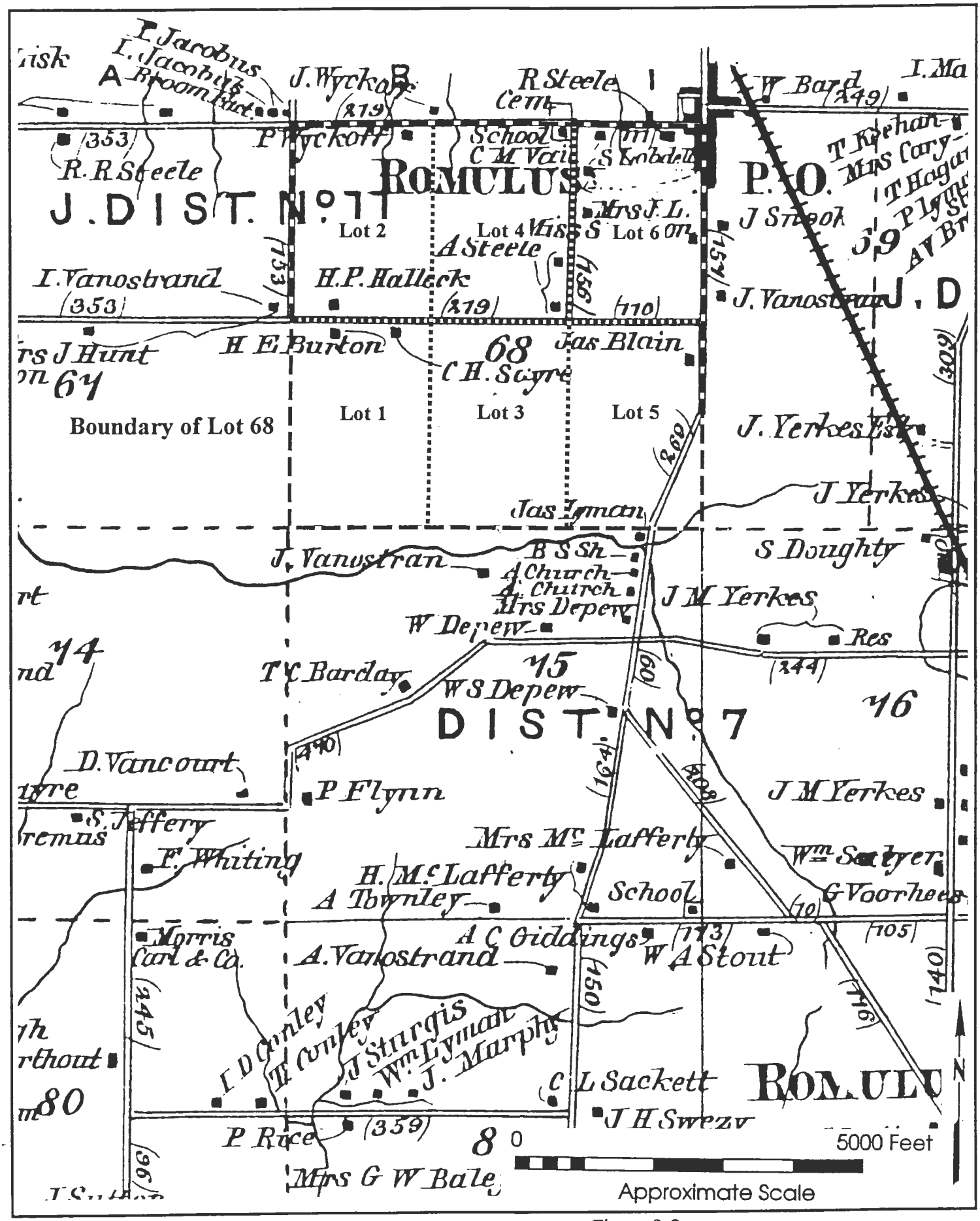
Figure 3-1.
Detail of Walker 1941 Real Estate Map
Showing Location of SEAD-59/71

Table 3.1 List of Property Owners for Lot 68, Plate 115, SEAD-59/71

Acreage	Owners	Years Owned or Occupied
167.76 acres	Clare M. Rundell and Mary L. Rundell	1923-1941
3 parcels: 109 acres, 47 acres and 11.76 acres	David M. Rundell and Lettie E. Rundell	1910-1923
109 acres	Charles Sayre and heirs Sarah Giddings and Martha Monroe	1863-1910
109 acres	Samuel H. Swezy and Maximelia Swezy	1862-1863
109 acres	Peter Doig and Christiana Doig	1839-1862
109 acres	John Wickoff	1828-1839
215 acres (Lots 3 and 4)	John Stewart and Anna Stewart	1816-1828
215 acres (Lots 3 and 4)	Gilbert Stewart and Milliscent Stewart	?-1816
107.5 acres (Lot 3)	Elijah Kinne, Sr.	1812-?
107.5 acres (Lot 3)	Amos Denton and Anne Denton	1810-1812
107.5 acres (Lot 3)	Elkanah Watson and Rachel Watson	?-1810

There is no knowledge of whether Lot 68 was ever settled or developed by a military veteran assigned to the land. The early ownership history of the lot appears to have been contested, however. According to deeds, Elkanah Watson was the first property owner documented by Seneca County. By this time, though, Lot 68 already had been divided into six smaller parcels, numbered lots 1-6 and comprising about 107 acres each (Figure 3-2). Lot 3 contained the area that would become SEAD-59 and SEAD-71, lot 4 was located immediately north, lot 1 was adjacent to the west, and lot 5 bordered on the east.

In 1791, settlers, headed by Elkanah Watson, camped on the site of the former Native American village of Kendaia (Anonymous 1876:149). It is possible that the Elkanah Watson, who owned part of Lot 68 during the early 1800s, was the same pioneer, or perhaps his son, although the deed lists Watson as a resident of Massachusetts at the time the document was made. Watson and his wife Rachel sold lot 3 to Amos and Anne Denton in 1810, who in turn sold to Elijah Kinne in 1812 (Liber E, p. 14; Liber F, p. 234). Lot 3 and part of Lot 4 were redesignated plat 115 by the Army in 1941 when they gained control of the property that became the SEDA.



Source: Nichols, 1874

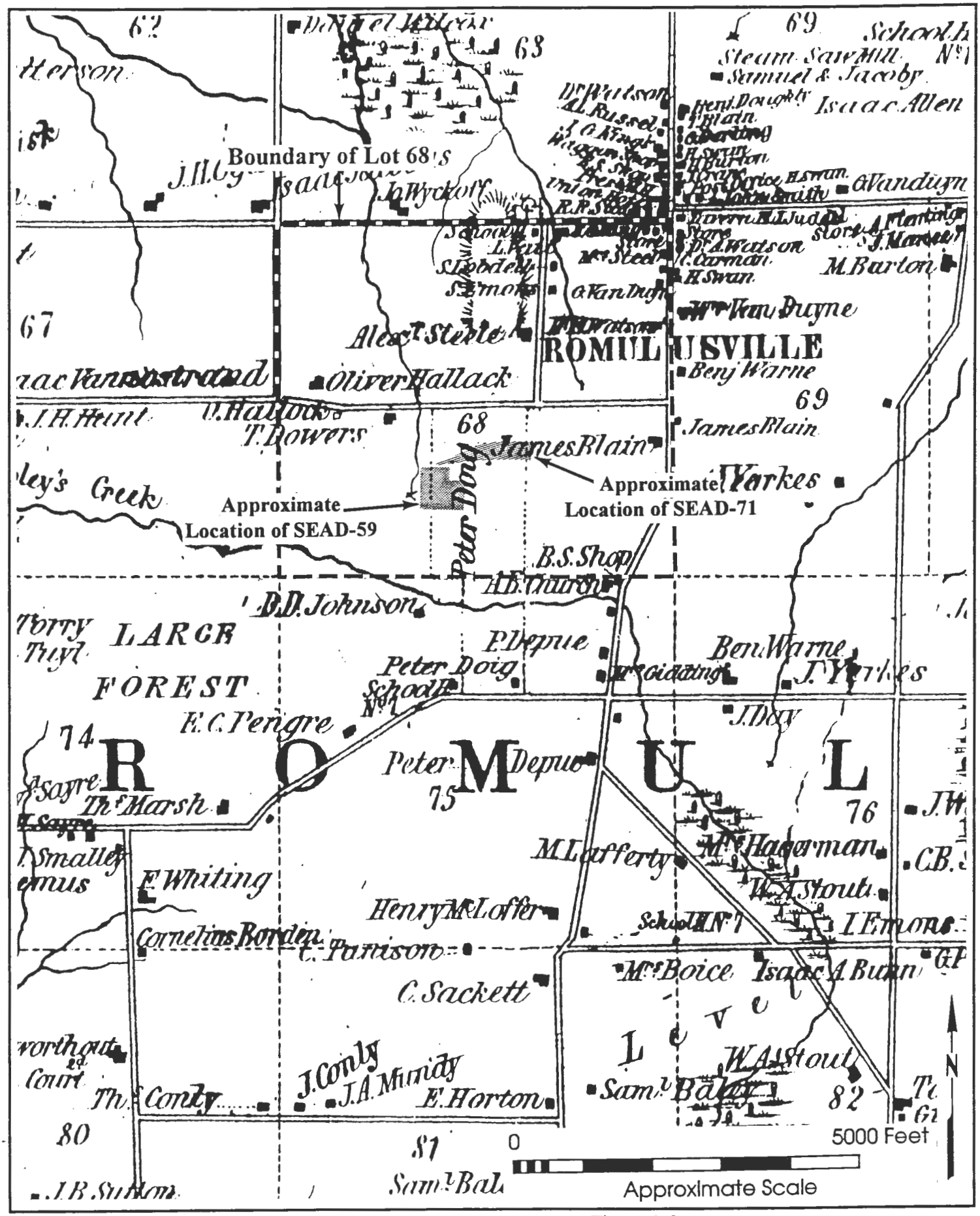
Figure 3-2.
Detail of Nichols 1874 Map
Showing Lot Divisions within Lot 68

At this point, it appears that there was some sort of legal dispute concerning ownership of the land. In 1813, a deed was recorded indicating that Artemus Ward, Jr. of Weston, Massachusetts was selling all of Lot 68, along with a number of other Military Lots in the area, to Samuel Dexter, Jr. of Charlestown, Massachusetts (Liber F, p. 228). However, no information was found to indicate when Ward had acquired the land and why it seemingly conflicted with deeds already recorded in Seneca County. In 1819, Dexter's heirs filed a number of quit claims to their father's property, including portions of Lot 68. Those smaller lots from larger Lot 68 that were recorded in the deed books included lots 1, 2 and 5 (Liber Q, p. 53). No mention was made of lot 3, which seemingly had been owned by Elijah Kinne in 1812, but a deed was recorded in 1816 by Gilbert Stewart, Dexter's attorney from Albany, who transferred lots 3 and 4 to John Stewart, who was living in Romulus (Liber K, p. 341).

By 1828, John Stewart and his wife Anna had moved to Washington County, Michigan. They sold 109 acres of their Lot 68 property (or lot 3) to John Wickoff of Romulus (Liber T, p. 485). Joseph Wickoff, probably John's father, had bought property on Military Lot 75, directly south of Lot 68, in the early 1800s, and during the first quarter of the century the Wickoff family extended their holdings into adjoining lots. John Wickoff is listed in the Romulus census for 1830, although it is not clear whether he was living on Lot 75 or Lot 68 at the time.

During the late 1830s, John Wickoff and probable business partners Asa Fenton and Jared Van Vleet became embroiled in legal proceedings stemming from a $10,000 debt the trio had accrued. As a result, the local sheriff was ordered by the New York Supreme Court to seize all their land and sell it at public auction. Peter Doig was the highest bidder for Wickoff's property, which included 109 acres comprising lot 3 on Lot 68 (Liber M2, p. 121, 351). Three separate deeds were recorded for this same property, in 1839, 1841, and 1844. The last deed was between Doig and Elijah Kinne of Romulus, who may have been the son of Elijah Kinne, Sr., the former landowner of the property (Liber P2, p. 319). Peter Doig and later his widow Christiana owned the property until 1862, when it was sold to Samuel Swezy (Liber 65. p. 14). Swezy and his wife Maximelia moved to Romulus from Yates County, New York after purchasing the property, but then sold it the following year to Charles H. Sayre, of Varick (Liber 68, p. 105).

Maps made in the 1850s (see Figure 3-3) illustrate the boundaries of the Doig property on Lots 68 and 75, although the only structure attributed to Doig is shown on Lot 75, well to the south of the SEAD-59 and SEAD-71 project area (Browne 185-, Gibson 1852, Gray 1859).



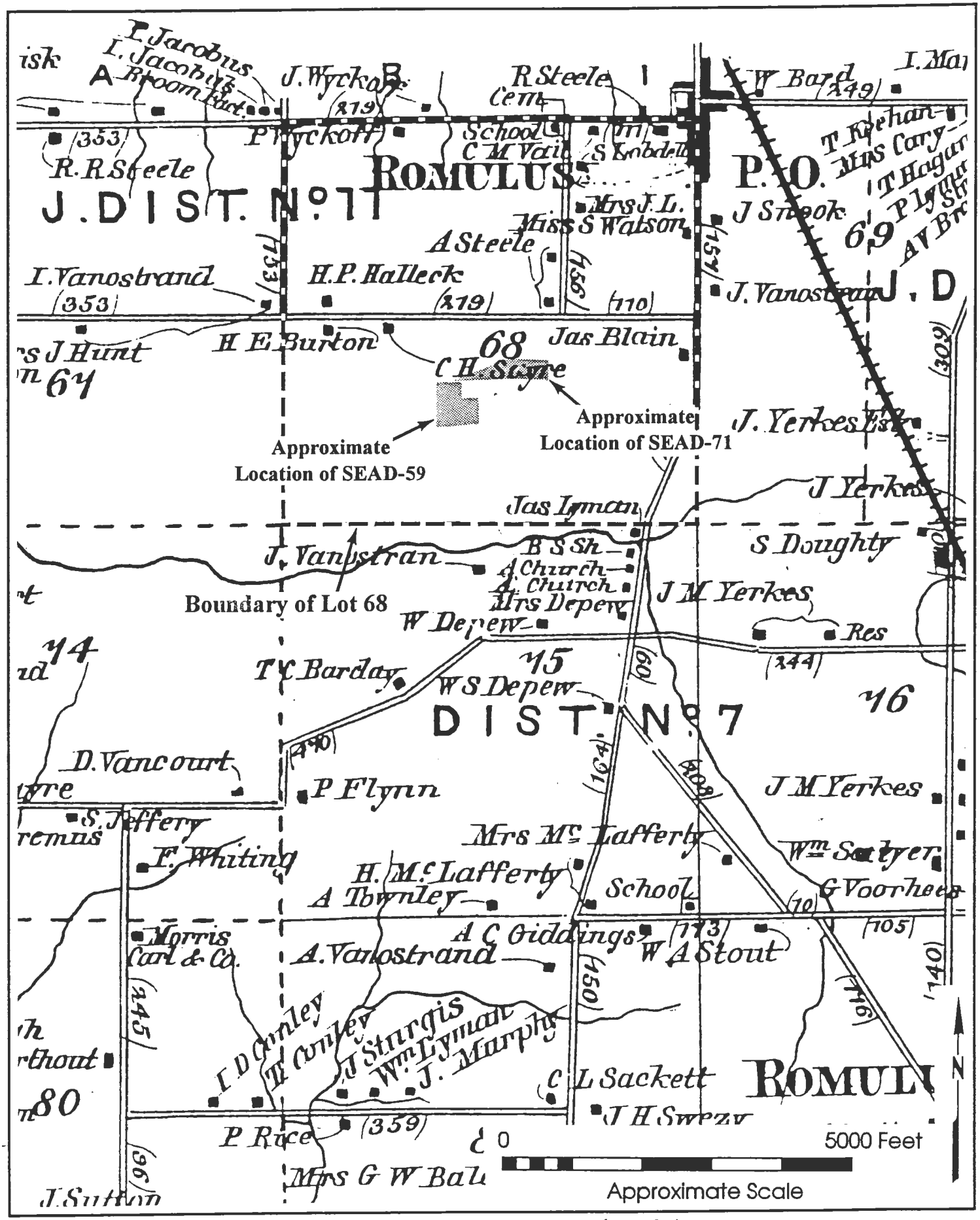
Source: Gibson, 1852

Figure 3-3.
Detail of Gibson 1852 Map
Showing Location of SEAD-59/71

Seneca Army Depot, SEAD-59 & 71

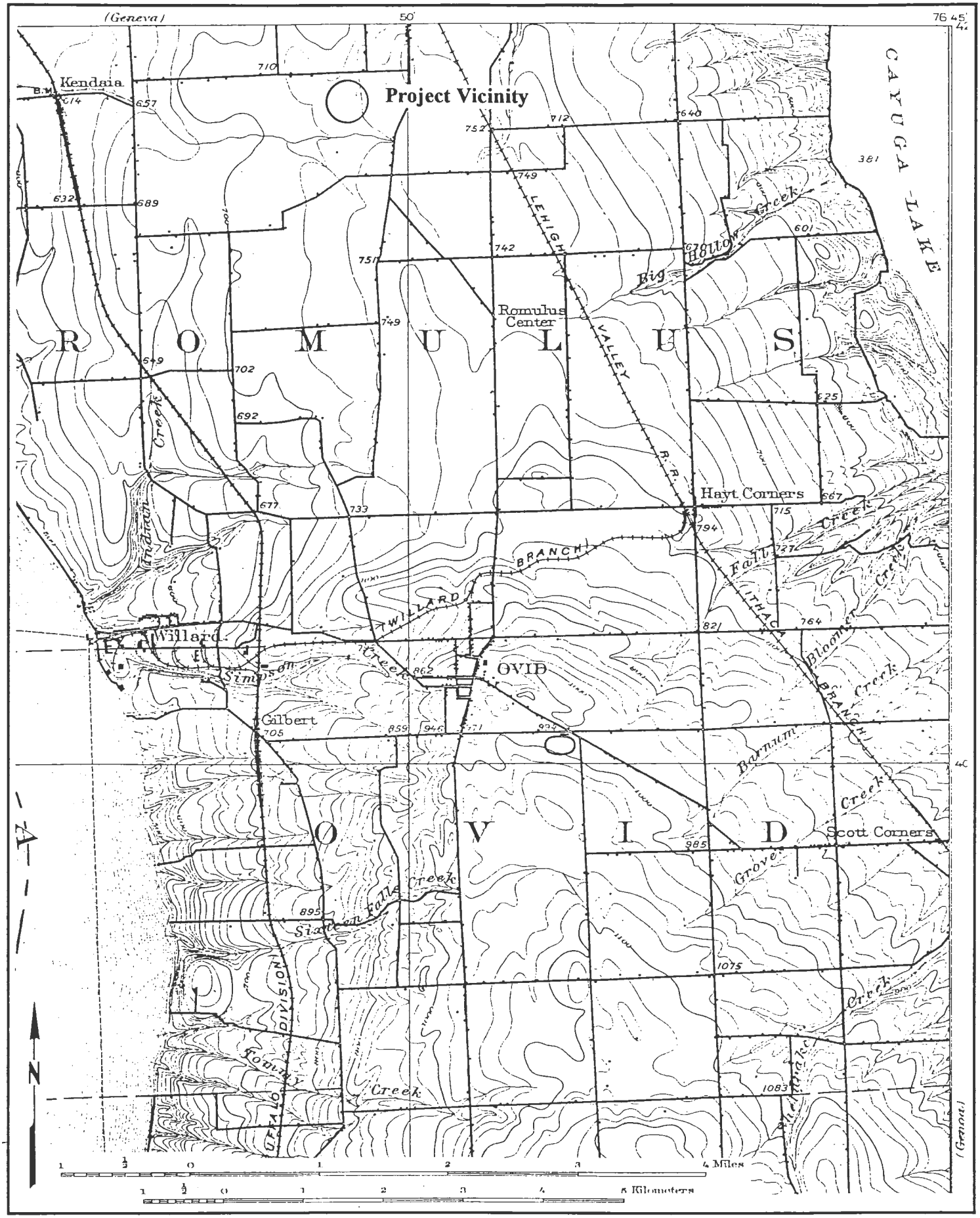
From the 1860s through the early twentieth century, lot 3 on Lot 68 was owned by the Sayre family. Figure 3-4, a map made in 1874, shows a structure attributed to C.H. Sayre near the northwest corner of lot 3, or perhaps on the northeastern portion of lot 1, which Sayre had acquired in the 1860s as well. The structure is shown along an access road leading to the western edge of Lot 68 (Nichols 1874). Figure 3-5, a detail of the 1902 USGS map, depicts the project vicinity. No structures are shown within the area that would become SEAD-59 and SEAD-71 (Figures 3-4 and 3-5) . These interior portions of the property were probably used for farmland or as grazing land for cattle, as business directories list Sayre as both a farmer and a stock raiser.

Charles Sayre died in 1902; his children sold his property on Lot 68 in 1910 to David and Lettie Rundell, of Romulus (Liber 130, p. 25). Until 1941, when the U.S. government purchased the 167 acres making up lot 3 and part of lot 1, the land was owned by the Rundell family, first by David and Lettie, and in 1923, by their son Clare and his wife Mary (Liber 149, p. 419). In summary, the property that would later contain SEAD-59 and SEAD-71 was owned by a succession of families and individuals over the course of the nineteenth century and the first part of the twentieth century. Some of these people occupied the land, others did not. However, historic map research indicates that at no point were any historic structures located within the SEAD-59 or SEAD-71 tracts. Thus, the land probably was used as grazing land or as farmland for most, if not all, of its Euro-American history.



Source: Nichols, 1874

Figure 3-4.
Detail of Nichols 1874 Map
Showing Location of SEAD-59/71



Source: USGS Ovid, NY Quad, 1902

Figure 3-5.
Detail of Ovid USGS Map (1902)
Showing Location of SEAD-59/71

Seneca Army Depot, SEAD-59 & 71

SECTION 4.0

BACKGROUND RESEARCH AND SENSITIVITY ASSESSMENT

4.1 BACKGROUND RESEARCH AND ARCHIVAL METHODOLOGY

Several goals guided the background research for this project. The first goal was to identify previously recorded archaeological sites within both the project area and the project vicinity. Four repositories were visited to obtain this information. In Albany, the New York State Office of Parks, Recreation and Historic Preservation houses all current archaeological site materials, while the New York State Museum maintains older archaeological site files. Visits to both facilities resulted in a preliminary assessment of previous archaeological work in the area. Regional offices in central New York supplemented the data obtained from the two Albany-based repositories. Additional archaeological reports and comparative artifact collections were researched at the Rochester Museum and Science Center in Rochester. Finally, the office of the Army Corps of Engineers, located on the Seneca Army Depot, maintains up-to-date files on all cultural resources work performed within the confines of the base, and is the most complete source for reports written about SEDA within the last several years. All four of the above repositories provided materials about previous archaeological work in the project vicinity.

The second goal of the background research was to define archaeologically sensitive areas for the identification of previously undocumented archaeological sites on the SEAD-59 and SEAD-71 properties. Two types of data were used to develop a sensitivity map for historical archaeological sites: (1) review of nineteenth- and early twentieth-century maps of the area, found at the New York State Archives in Albany, the Seneca County Library in Geneva, and the Library of Congress in Washington, D.C.; and (2) deed records on file at the Seneca County Recorder of Deeds Office for the individual parcels within the SEAD-59 and SEAD-71 tracts. All historic maps were overlaid against a current map of the property to determine where former buildings and structures had stood. Review of these historic maps revealed that no structures formerly stood on either of the two SEAD parcels. The historic maps also helped identify areas in the vicinity of the SEAD-59 and SEAD-71 properties where

former wetlands and drainages had been located. This information, combined with comparative data from other archaeological site locations in the vicinity, permitted the identifica n of archaeologically sensitive areas for prehistoric resources.

The last goal of the background research was to obtain relevant information c erning the prehistoric and historic development of the region and the land-use history of project area, especially concerning the individual property owners whose holdings include : SEAD-59 and SEAD-71 parcels. To supplement primary and secondary source mater from the aforementioned repositories, abstracted data from census, birth, marriage, death, pension, and other legal records also were reviewed at the Seneca County Historian's Office. The Seneca Army Depot also provided current and historic photographs and maps, some of which are reproduced in this report.

4.2 PREVIOUS ARCHAEOLOGICAL STUDIES

No archaeological sites or standing historic structures have been previously documented within the SEAD-59 or SEAD-71 boundaries prior to this project. This fact was due most certainly to the lack of a cultural resources survey on the actual property, although the tract had been included in several larger archaeological studies. The most important previous investigation was a base-wide archaeological overview and management plan prepared by Envirosphere Company in 1986 (Klein 1986). In this study, 231 potential archaeological sites were identified by Envirosphere Company based upon historic maps. However, none of these projected sites is located within the SEAD-59 or SEAD-71 project boundaries. Recently, a more intensive survey of the Seneca Army Depot property has been initiated by Geo-Marine, Inc.; this study is still pending.

The SEAD-59 and SEAD-71 parcels were also included in a cultural resources survey of the Seneca County Sewer District No. 1, a large area containing parts of Varick, Romulus, and Ovid (Pratt and Pratt 1977). All subsurface investigations were limited to areas of the sewer district near the town of Ovid and west of Route 96A along East Lake Road, ne the Seneca Lake shore. No subsurface investigations occurred on the Seneca Army Depot, nor was any specific research undertaken regarding the SEAD-12 property. A follow up study adjacent to the original project area was performed several years later, but it did not impact any land on the Seneca Army Depot (Pratt 1981).

A number of prehistoric archaeological sites have been recorded within and adjacent to the Seneca Army Depot. However, most of the sites are over one mile (some are two or three miles) from the SEAD-59/71 project area. The closest recorded sites to the project area are NYSM-4825 and UB-1260, both of which were originally recorded on Lot 67, approximately one mile from the SEAD-59/71 parcels. Table 4.1 is a summary of the prehistoric sites on or near the depot on file at the New York State Museum, the New York State Office of Parks, Recreation and Historic Preservation, and the New York State Archaeological Survey at SUNY Buffalo.

Table 4.1 Summary of Archaeological Sites in the Vicinity of SEAD-59/71

Site Number	Location of site	References	Remarks
NYSM-4820	Romulus Quad, "On branch of Kendig Creek, lot 26, Fayette	Parker 1920	Parker Site 17, village site
NYSM-4822	Romulus Quad, "On small brook...lot 74, town of Varrick (sic)"	Parker 1920	Parker Site 19, camp site
NYSM-4825	Romulus Quad, "Lot 67...near a small stream running from one of the sources of Reeder Creek"	Parker 1920, Klein 1986, Fiedel 1996	Parker Site 22, village site
NYSM-4823	Geneva South and Dresden Quads, "Lot 64, Romulus, on Seneca Lake"	Parker 1920, Fiedel 1996	Parker Site 20, camp site
NYSM-4840	Geneva South and Dresden Quads, west of railroad tracks	Parker 1920, Fiedel 1996	Parker site, no number, "traces of occupation"
NYSM-8685	Ovid Quad, second projected location of Parker Site 21	Parker 1920	Parker Site 21B, village site
UB-1260	Ovid Quad, Lot 67	Beauchamp 1900, Klein 1986, Fiedel 1996	"Hunt Site," Late Woodland village site
NYSM-4824	Dresden Quad, Lot 79 within Sampson State Park	Beauchamp 1900, Parker 1920, Klein 1986, Bodner and Ewing 1993	Parker Site 21A, Iroquois village site and cemetery
NYSM-4826	Dresden Quad, "Lot 65 and on either side of a small stream at the mouth of a ravine"	Beauchamp 1900, Parker 1920, Klein 1986, Fiedel 1996	Parker Site 23, village site "of early occupation"
A09906.000016	Dresden Quad, west of West Smith Farm Road, Lot 72	Oberon 1995, Fiedel 1996	Middle Archaic and Early Woodland small camp site

Nearly all of the prehistoric archaeological sites were initially recorded during the early twentieth century by William Beauchamp (1900) and Arthur Parker (1920). Many of the sites recorded by Parker in 1920 were located based on recollections of local informants and as such could not be field checked. A study by John Milner Associates attempted to relocate five previously recorded prehistoric sites within the Seneca Army Depot boundaries (Fiedel 1996). The results were uniformly negative (i.e., because they could not relocate any of the sites, they recommended no further work). To date, the only known prehistoric site discussed in Table 4.1 recorded by Parker that has been positively located is the Iroquois village site of Kendaia (NYSM-4824, RMSC Ovd 3). Beginning in the 1940s, four separate excavation episodes occurred at the site's Native American cemetery. Harry L. Schoff excavated 21 burials in 1941 and 22 burials in 1942. He concluded that the first set dated to the late 1700s, and may have been associated with the John Sullivan raid on the village in 1779, whereas the second set dated to 1700-1730. Two subsequent excavations by members of the avocational Archaeological Society of Central New York in 1949 and 1951 resulted in the removal of 39 additional graves (Bodner et al. 1993). During a Stage 1A study of Sampson State Park in 1993, the site was relocated but not subjected to any further excavation. In consultation with personnel from the New York State Office of Parks, Recreation and Historic Preservation, it was decided that the site should not be excavated further unless it was threatened by impending development (Bodner et al. 1993).

Recently, two archaeological studies were completed in the southwest portion of the Seneca Army Depot property near Sampson State Park. The first, by HeritageAmerica, Ltd., was a Phase I investigation of the Ash Landfill site, a former refuse incineration and disposal site. The survey resulted in the identification of a small campsite, dating to the Middle Archaic and Early Woodland (site A09906.000016 from Table 4.1). In addition, the remains of three or possibly four twentieth-century structures were identified that do not appear to meet National Register criteria individually, but might contribute to a larger district encompassing the former farm property on which they sit (Oberon 1995).

The second recent project on the SEDA was a Phase I cultural resources survey conducted by PanAmerican Consultants, Inc. in 1996 at the Seneca Army Airfield, located in the southwest corner of the Seneca Army Depot. The survey identified three historical archaeological sites. One site (PCI/SADA 1), located within the yard of a nineteenth-century Greek Revival house, contains stratigraphic integrity and is considered potentially eligible for the National Register. The other two sites (PCI/SADA 2 and PCI/SADA 3) represent

artifactual remains associated with nineteenth-century farmsteads that were located on historic maps. The integrity of these two sites has been disturbed by modern disturbances, and as such they do not meet National Register criteria for eligibility (Cinquino et al. 1996).

All of the remaining compliance-related archaeological studies that are located within a one to two mile radius of the Seneca Army Depot have been preliminary surveys for the installation or modification of gas lines, wells, or in one case, a county road. Virtually all of these projects found no archaeological sites (Bartochowski and Nelson 1985; High and Nagel 1986a, 1986b, 1986c, 1986d; Kula 1987; Manchester and Nagel 1985, 1986a, 1986b, 1986c, 1986d; Nagel 1985). The two exceptions were a prehistoric lithic scatter (RMSC Gen 16, Hoser Site), consisting of 1 chert biface and 11 chert flakes, recorded several miles northwest of SEAD-12 in the town of Fayette north of Lerch Road and west of Highway 96A (Nagel and Manchester 1986), and two light concentrations of historic artifacts along the south side of Yale Farm Road just north of the depot boundaries, deemed not significant due to previous disturbance of the area from dumping and grading activities. No further information was given about the temporal association of the artifact assemblage or the previous occupants of the property along Yale Farm Road (Manchester and Nagel 1986e).

4.3 ASSESSMENT OF ARCHAEOLOGICALLY SENSITIVE AREAS

Based upon review of the archaeological site files, historic map research, and deed information, no areas within SEAD-59 or SEAD-71 were deemed sensitive for the recovery of historical archaeological resources. This assessment is due to the fact that the parcels encompassed by the project area are located on former farmland within the interior sections of lot divisions. That is, historic buildings would have been located along the margins of the property with access to roads. As such, no historic buildings would have been located at the interior locations of these farm parcels. This assumption is confirmed by nineteenth- and early twentieth-century maps. Thus, the entire SEAD-59/71 tracts were designated as having a low probability for historical cultural resources.

No part of the SEAD-59 or SEAD-71 property is in close proximity to a perennial water source, although an unnamed drainage swale, now channelized, runs roughly east-west south of these areas. Several channelized or culverted intermittent drainages appear on modern maps of the depot within or adjacent to the SEAD parcels, but these features are man-made and

therefore not considered in this assessment. Based on the absence of former perennial stream courses and or wetland features as well as the extensive degree of twentieth century disturbance, the SEAD-59 and SEAD-71 parcels were designated as having a low probability for the recovery of prehistoric resources.

SECTION 5.0

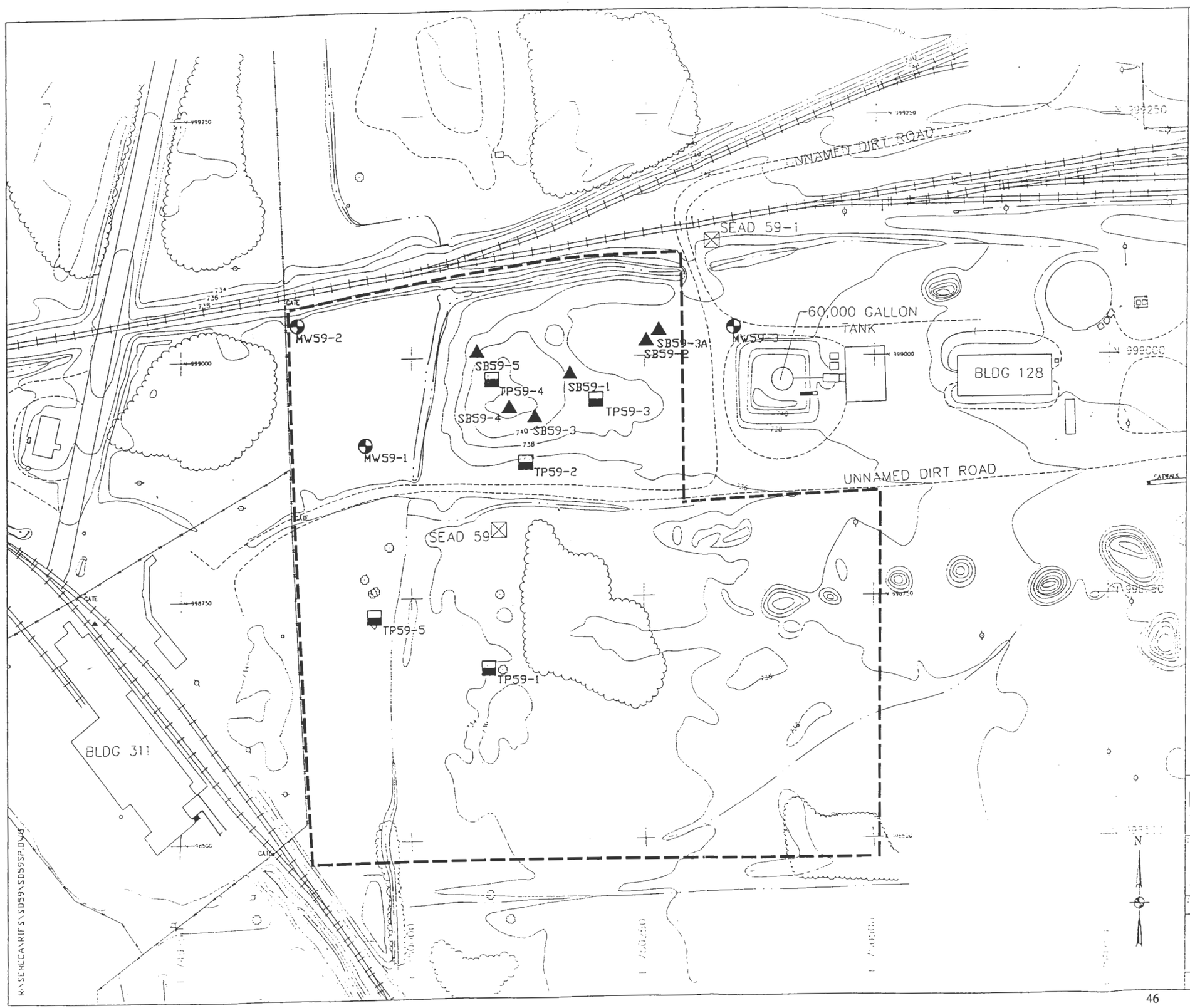
FIELD METHODOLOGY AND SURVEY RESULTS

5.1 FIELD METHODOLOGY

SEAD-59 is a disposal area at SEDA, and SEAD-71 is a rumored paint and/or solvent disposal area. Both of these areas are located in the east-central portion of SEDA, with SEAD-71 lying immediately north of SEAD-59. Railroad tracks bisect these areas and often form the boundaries of the study area. The field methodology combined the results of previous soil boring data and geophysical testing with the results of background research, archival research (i.e., historic map and deed research in order to ascertain the location of former historic buildings or sites), and additional research on geomorphological and soil conditions (in order to determine if any watersheds or wetlands were located in the project vicinity during the past). The purpose of these various lines of research was to identify archaeologically sensitive areas for prehistoric and historical sites. SEADs-59/71 are considered to have a low probability for prehistoric and historical archaeological sites. Field investigations consisted of two parts: (1) a pedestrian survey to identify sites visible from inspection of the exposed ground surface, and (2) the systematic excavation of shovel test pits (STPs) in areas that previous geophysical testing indicated did not contain deep disposal pits or extensive (several feet or more) layers of fill.

5.1.1 Soil Borings and Geophysical Testing

Prior to conducting the Phase I archaeological survey, Parsons ES, Boston conducted a drilling program, geophysical testing, and the excavation of selected test pits. The drilling program consisted of soil borings and ground-water monitoring wells at selected locations within each SEAD area. For example, SEAD-59 contained six soil boring locations and three monitoring wells. The locations of the borings and wells are illustrated in Figure 5-1. SEAD-71 contained three ground water monitoring wells, but no soil boring locations (Figure 5-2).



PARSONS

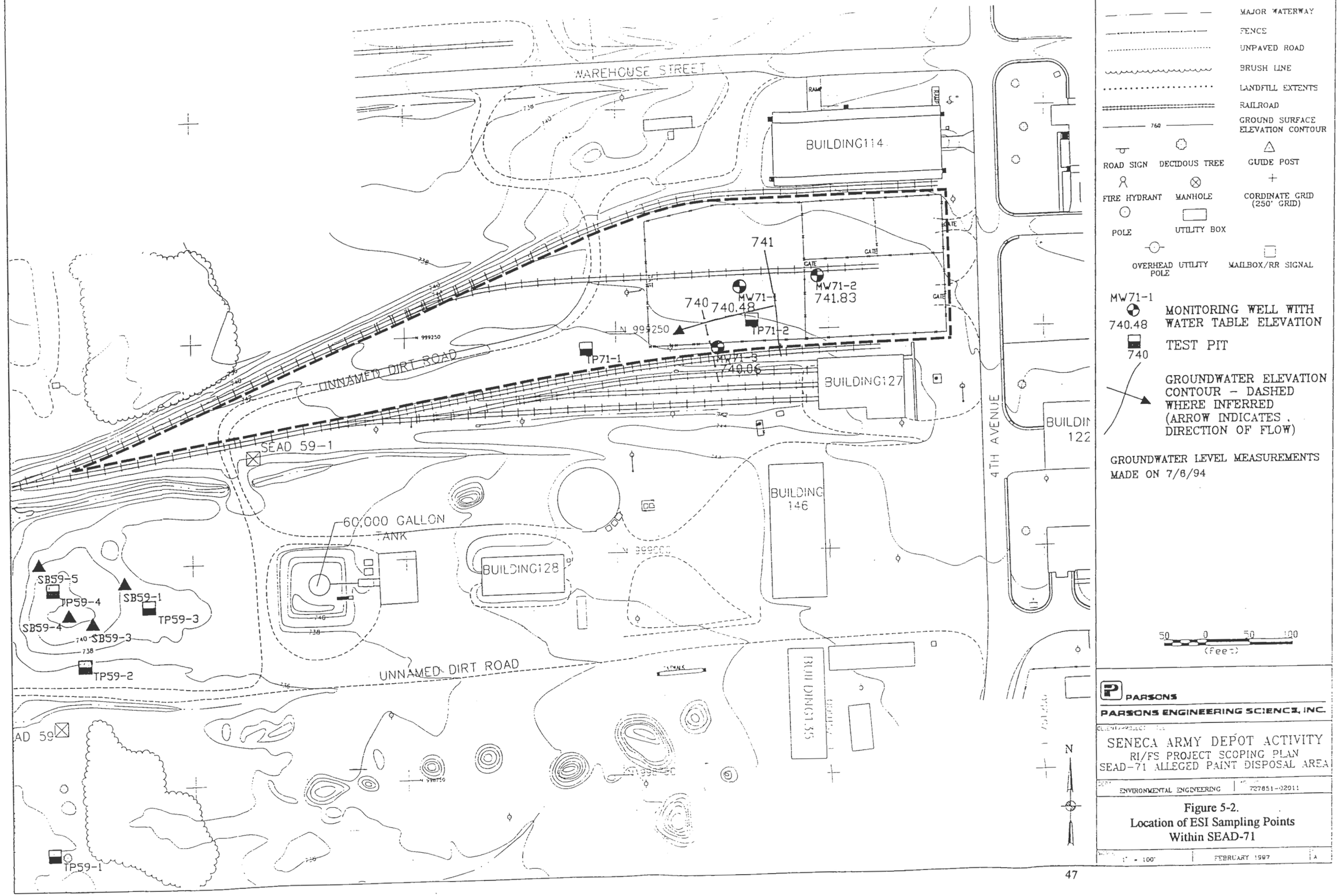
PARSONS ENGINEERING SCIENCE, INC.

SENECA ARMY DEPOT ACTIVITY
RI/FS PROJECT SCOPING PLAN
SEAD-59 FILL AREA WEST OF BLDG. 135

ENVIRONMENTAL ENGINEERING | 727851-02011

Figure 5-1.
Location of ESI Sampling Points Within SEAD-59

1" = 100' | FEBRUARY 1997 | A


WAREHOUSE STREET
BUILDING 114
741
MW71-2
741.83
740
740.48
MW71-1
TP71-2
N 999250
TP71-1
MW71-3
740.06
UNNAMED DIRT ROAD
BUILDING 127
SEAD 59-1
60,000 GALLON TANK
BUILDING 128
BUILDING 146
BUILDING 122
4TH AVENUE
SB59-5
TP59-4
SB59-1
TP59-3
SB59-4
SB59-3
TP59-2
UNNAMED DIRT ROAD
TP59-1
N
LEGEND
MINOR WATERWAY
MAJOR WATERWAY
FENCE
UNPAVED ROAD
BRUSH LINE
LANDFILL EXTENTS
RAILROAD
760
GROUND SURFACE ELEVATION CONTOUR
ROAD SIGN
DECIDOUS TREE
GUIDE POST
FIRE HYDRANT
MANHOLE
CORDINATE GRID (250' GRID)
POLE
UTILITY BOX
OVERHEAD UTILITY POLE
MAILBOX/RR SIGNAL
MW71-1
740.48
MONITORING WELL WITH WATER TABLE ELEVATION
740
TEST PIT
GROUNDWATER ELEVATION CONTOUR - DASHED WHERE INFERRED (ARROW INDICATES DIRECTION OF FLOW)
GROUNDWATER LEVEL MEASUREMENTS MADE ON 7/6/94
50 0 50 100
(Feet)
PARSONS
PARSONS ENGINEERING SCIENCE, INC.
SENECA ARMY DEPOT ACTIVITY
RI/FS PROJECT SCOPING PLAN
SEAD-71 ALLEGED PAINT DISPOSAL AREA
ENVIRONMENTAL ENGINEERING
727851-02011
Figure 5-2.
Location of ESI Sampling Points
Within SEAD-71
1" = 100'
FEBRUARY 1997
A

Geophysical testing, including electromagnetic (EM-31) and ground penetrating radar (GPR) surveys, were conducted at both SEAD-59 and 71. Based on these survey results, selected EM-31 and/or GPR anomalies were subjected to further testing through the excavation of test pits. Five test pits were excavated at SEAD-59 and two test pits were excavated at SEAD-71, the locations of the test pits are illustrated in Figures 5-1 and 5-2, respectively. The results of the soil borings, monitoring wells, geophysical testing, and test pits are discussed in Section 5.2

5.1.2 Pedestrian Survey

A systematic pedestrian survey was conducted at both SEAD-59 and SEAD-71. The goal of the pedestrian survey was to identify any archaeological sites, features, or artifacts visible on the surface, and to identify areas that were too disturbed or too wet to justify the placement of STPs. The pedestrian survey, which consisted of a systematic walkover of the entire project area, was conducted by a four person team of archaeologists. Survey transects were spaced at 20 meter (m) intervals and were oriented east-west. North-south baselines were established at the eastern margin of the project area along the clear-cut/forest boundary. Figures 5-3 and 5-4 depict the location of survey transects within SEADs-59 and 71, respectively.

The pedestrian survey corroborated geophysical data that indicated the entire SEAD-59 project area was heavily disturbed. Disturbances were present in the form of large spoil piles in the northeastern and east-central sections of SEAD-59 (Figure 5-3). Other areas in SEAD-59 were heavily graded as noted by the absence of topsoil, the exposed bedrock surface, and the undulating, irregular surfaces. Vegetation was very sparse in these locations, and decomposed shale bedrock was visible on the surface. A wooded area located in the center portion of SEAD-59 also contained piles of asphalt and concrete, as well as large piles of metal debris. A known paint disposal pit, located in the west central portion of SEAD-59, was avoided, as per the Health and Safety Plan. A small flat area along the southeastern section of SEAD-59 appeared relatively undisturbed and this area was selected for testing by STPs.

SEAD-71 proved to be as disturbed as SEAD-59 (Figure 5-4). For example, the western portion of SEAD-71 was composed entirely of extensive fill deposits that were used to raise the railroad beds above the surrounding soil. The railroad beds rise some 10-12 feet above the surrounding landforms and are easily recognized as fill. Areas adjacent to the railroad bed were covered by debris piles in the form of railroad steel, and concrete road barriers.

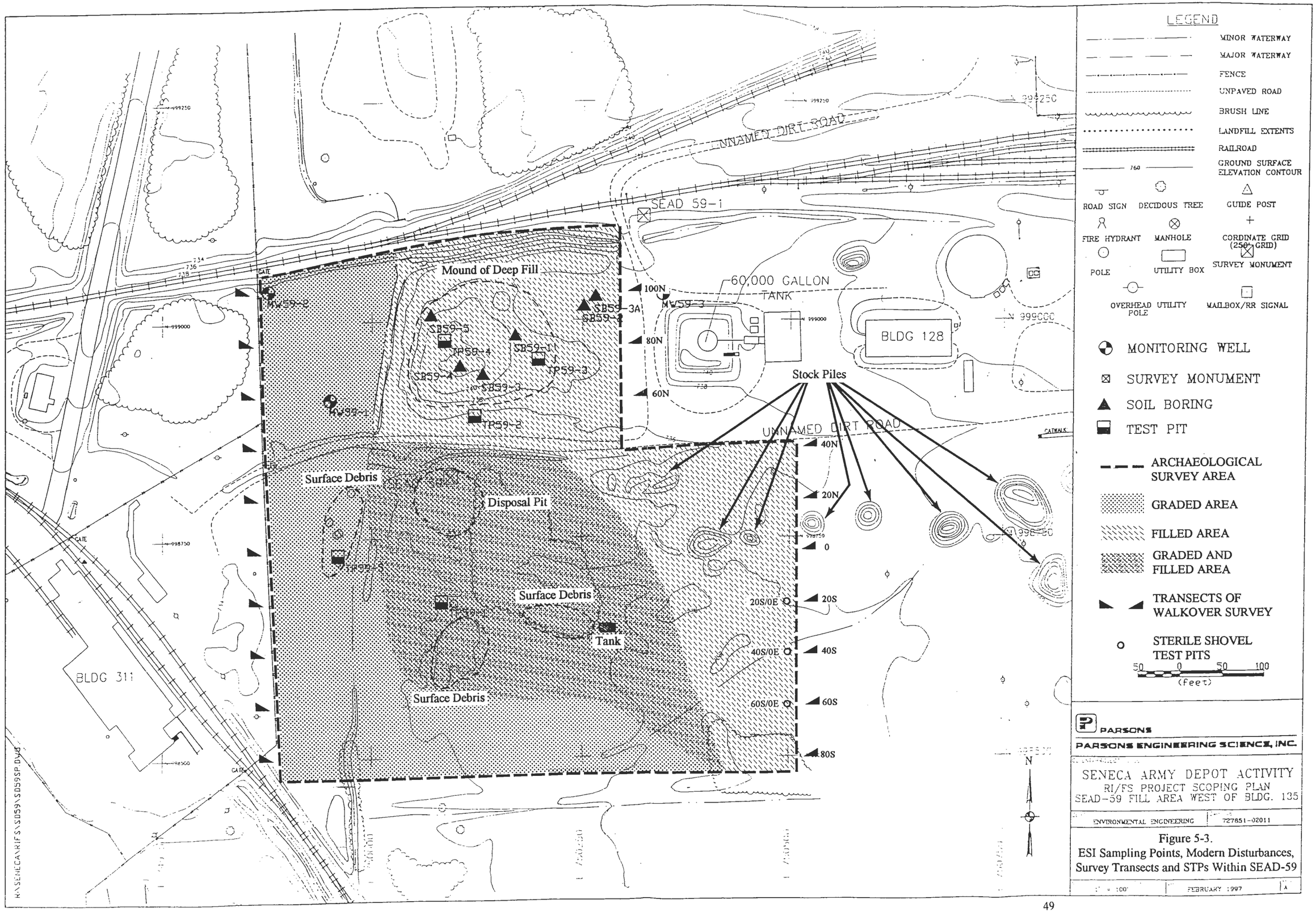


Figure 5-3.
ESI Sampling Points, Modern Disturbances, Survey Transects and STPs Within SEAD-59

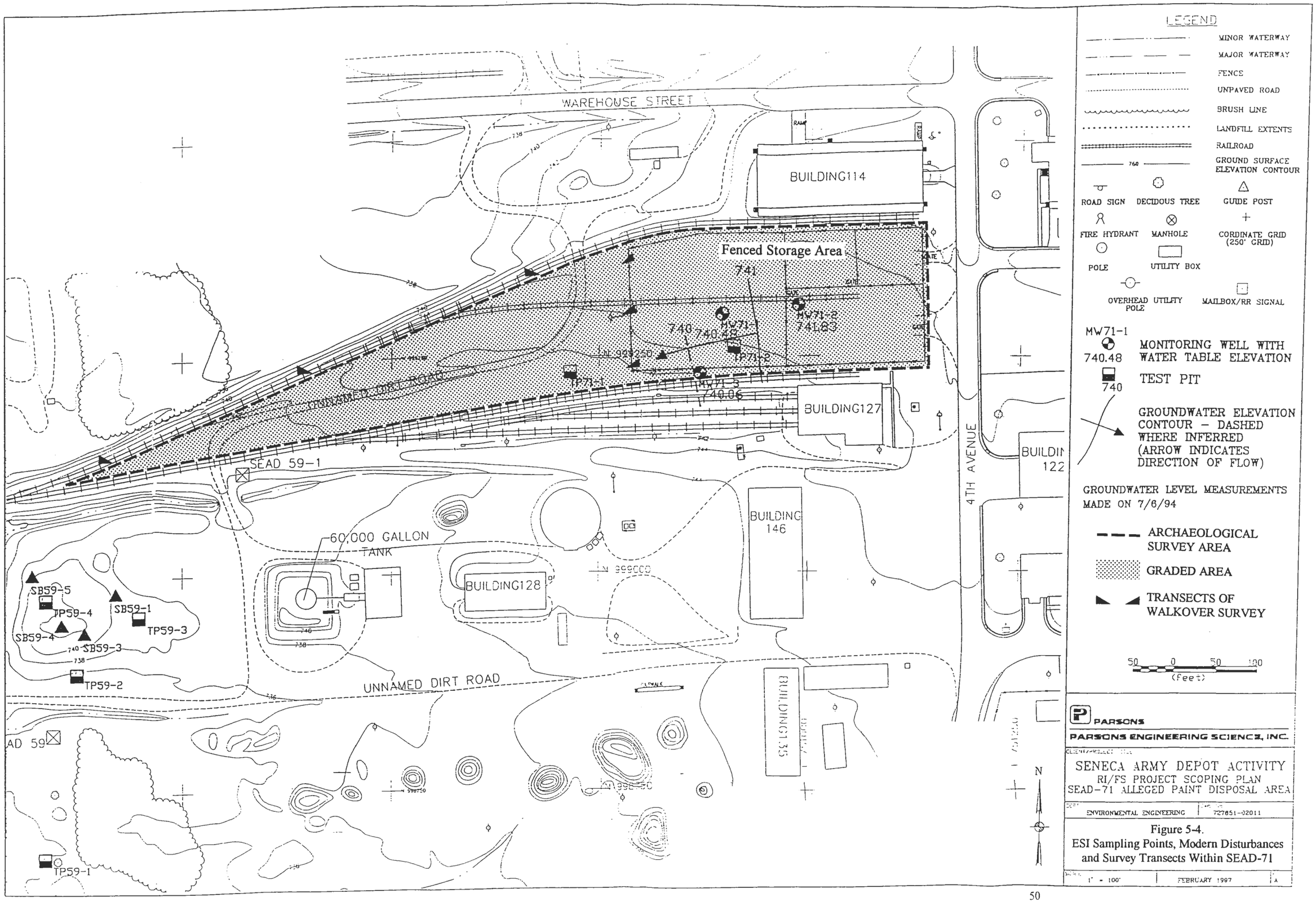


Figure 5-4.
ESI Sampling Points, Modern Disturbances and Survey Transects Within SEAD-71

The eastern sections of SEAD-71 was completely paved and was currently being used for equipment storage. Since the top soil had been removed from the entire SEAD-71 area, no STPs were excavated in this area. The southern portion of SEAD-71 displayed decomposed shale on the ground surface indicating that both the top soil and the till had been removed during grading activities.

5.1.3 Shovel Testing

Background and archival research indicated that there were no sites, or possible historic structures located on either SEAD-59 or SEAD-71. Nonetheless, it was determined that the southeastern corner of SEAD-59 would require shovel testing. A north-south base line was set along the eastern edge of SEAD-59, and transects were oriented east-west along the baseline (Figure 5-3). Three STPs were excavated along this easternmost transect. Both shovel test profiles indicated a thick fill layer immediately below the surface. The STPs could not penetrate the fill and were terminated at the limits of practical excavation (i.e., ca. 80-90 cms). In one STP (20S 0E), a potential piece of unexploded ordinance (UXO) was encountered in the fill. In accordance with the Health and Safety Plan, excavation was halted and all work was stopped.

5.2 SURVEY RESULTS

5.2.1 SEAD-59

The drilling program conducted by the Parsons ES Boston office at SEAD-59 indicated that the depth of fill across the area varied between 2 ft. and 10.5 ft., the average depth of fill in SEAD-59 was 6.5 ft. Soil boring logs identified four major stratigraphic units. These include fill material, glacial till, weathered dark-gray shale, and gray-black shale. Little if any topsoil was observed in the soil bores, and areas which did not contain several feet of fill exhibited decomposed bedrock on the surface. These data confirm field observations that the topsoil in SEAD-59 was stripped at some time in the past (see Plate 2-2). It is likely that some of the topsoil from SEAD-59 was removed to use as fill for the railroad bed. The depth of the glacial till deposits in SEAD-59 varies between 6.6 ft. and 17.7 ft. The depth to weathered (decomposed) bedrock varied between 10 to 20 or more ft.

The geophysical testing confirmed an average depth of fill between 5 and 10 ft. The geophysical testing also identified several soil anomalies, suggestive of disposal pits. Test pits were excavated at five of these locations. One test pit (TP59-3) resulted in the identification of three 55-gallon drums. TP59-1 produced evidence of paint-stained soil, and TP59-4 produced evidence of petroleum-stained soil. Other anomalies identified as a result of the geophysical testing have been targeted for remediation work in the future.

Figure 5-3 illustrates the location of the survey transects and STPs in relationship to the soil borings, monitoring wells, the disposal pits, and the trash piles. No archaeological sites, features, or artifacts were discovered during the pedestrian survey. In one STP (20S 0E), a potential piece of UXO was encountered in the fill. In accordance with the Health and Safety Plan, excavation was halted and all work was stopped. However, based on the extensive degree of disturbance across the entire surface area, the depth of fill, the removal of the top soil by grading in areas that are not covered by fill, and the presence of UXO, it is highly unlikely that any archaeological sites would be located in SEAD-59. Therefore, it is recommended that no further work be conducted in this area, and that remediation investigations may begin umimpeded by archaeological concerns.

5.2.2 SEAD-71

The subsurface exploration program conducted by the Parsons ES Boston office for the ESI at SEAD-71 included three soil borings, geophysical testing, and the excavation of two test pits. The soil borings identified three major stratigraphic units, namely: glacial till, decomposed (weathered) calcareous shale, and shale bedrock. Boring log data indicate that the top soil had been stripped from the area, and that glacial till, where present, varied from four to eight feet in thickness. In the southern portion of SEAD-71, boring log data suggest that all the top soil and most of the till have been removed, possibly to assist in constructing the railroad bed. These results indicate that the likelihood of finding any intact archaeological deposits or sites is extremely limited.

Geophysical testing (both EM-31 and GPR) was conducted at SEAD-71. The geophysical testing program for the ESI resulted in the identification of several anomalies. Two of the anomalies were investigated through the excavation of test pits (TP71-1 and TP71-2). The source of the EM-31 and GPR anomalies at TP71-1 was identified as construction debris such as fencing, sheet metal, asphalt, and a crushed 20-gallon drum. The source of the GPR anomaly in the vicinity of TP71-2 could not be located; presumably this anomaly is related to changes in electrical properties within the soil matrix.

Figure 5-4 illustrates the location of the survey transects in SEAD-71 in relationship to the soil borings, test pits, fill areas, and the storage area. No archaeological sites, features, or artifacts were discovered during the pedestrian survey. Based on the extensive degree of disturbance across the entire surface area, the lack of top soil across the area, the extent of the graded areas, and the presence of deep fill layers beneath the railroad tracks, no STPs were excavated in SEAD-71. However, it is highly unlikely that any archaeological sites would be located in SEAD-71. Therefore, it is recommended that no further work be conducted in this area, and that remediation investigations may begin umimpeded by archaeological concerns.

SECTION 6.0

SUMMARY AND MANAGEMENT RECOMMENDATIONS

A Phase I identification survey of SEADs 59 and 71 was conducted by the Cultural Resources Department of Parsons ES, Fairfax, Virginia. SEAD 59, used as a disposal area for construction debris and oily sludge, and SEAD-71, a possible disposal area for paints and solvents, are located in the east-central portion of SEDA. An Expanded Site Inspection (ESI) was conducted by the Parsons ES, Boston office, prior to initiation of the Phase I archaeological investigations. The ESI, which consisted of soil borings, ground-water monitoring wells, geophysical testing (EM-31 and GPR), and test pit excavations of soil anomalies, identified four principle stratigraphic units in SEAD-59 (fill, glacial till, decomposed shale, and shale bedrock) and three units (glacial till, decomposed shale, and shale bedrock) in SEAD-71. Soil borings indicate that the fill in SEAD-59 ranges between 2 and 10.5 feet, with an average of 6.5 feet of fill. Within SEAD 59 and 71, areas which did not contain fill had been stripped of top soil and till and exhibited decomposed shale on the surface. Additionally, the ESI identified numerous magnetic and soil anomalies that will be investigated during the proposed remediation investigations.

The Phase I archaeological investigations consisted of background and archival research, historic map research, identification of archaeologically sensitive areas, and field investigations. Background research indicated that no previously recorded archaeological sites had been recorded within the project vicinity. Moreover, historic map research demonstrated: (1) that no former buildings or structures were located in the project area, and (2) that no former streams or wetlands were located in the area. Thus, SEAD 59/71 are considered to have low potential for containing prehistoric and historical archaeological sites.

Field investigations included a pedestrian survey of both SEADs 59 and 71 and the limited excavation of STPs within SEAD-59. Survey transects were oriented east-west, with the baselines established along the eastern margin of each study area. Survey transects were spaced at 20-m intervals. The pedestrian survey documented that both SEAD 59 and 71 had been subjected to extensive disturbances throughout the military use of the area, however, no

archaeological sites, features, or artifacts were identified as a result of the pedestrian survey. Based on observations made during the pedestrian survey, STPs were excavated within the southeastern corner of SEAD-59. However, because one STP encountered a potential piece of UXO, all STP excavations were terminated as per the Health and Safety Plan. The Health and Safety Plan also prohibited the excavation of STPs in areas adjacent to known disposal pi

In conclusion, background and archival research indicate that SEAD-59/71 has a low probability of containing any archaeological sites or artifacts. Moreover, given the extensive and intensive nature of the disturbances throughout SEADs 59 and 71, (i.e., in the form of fill, disposal pits, and the probable removal of top soil from the entire area encompassed by SEAD-59/71), it is extremely unlikely that any archaeological sites are located with SEAD-59/71. Based on data collected from soil borings, ground-water monitoring wells, geophysical testing, excavation of geophysical test pits, and field observations made during the reconnaissance survey, it was abundantly clear that the survey areas had been extensively disturbed. Therefore, it is recommended that no further archaeological investigations are required prior to initiation of the remediation investigations proposed by Parsons ES, Boston.

SECTION 7.0

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1986c Stage 1B Cultural Resource Investigations for 3.56 Miles (5.73 km) of Natural Gas Pipeline Routes for Union Drilling, Inc. in the Yost Corners Extension #4, Town of Fayette and MacDougall Extension #4, Town of Varick, Seneca County, New York, Case No. 70356. Prepared by the Cultural Resource Survey Program, Research Division of the Rochester Museum and Science Center for Union Drilling, Inc.

1986d Stage 1B Cultural Resource Investigation for Approximately 4.07 Miles (6.6 km) of Natural Gas Pipeline for Union Drilling, Inc., in the Towns of Fayette and Varick, Seneca County New York. Prepared by the Cultural Resource Survey Program, Research Division of The Rochester Museum and Science Center for Union Drilling, Inc.

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1986d Stage 1B Cultural Resource Investigations for Approximately 7.56 Miles (12.16 km) of Natural Gas Pipeline for Union Drilling, Inc., Towns of Fayette and Varick, Seneca County, New York (Case #70342). Prepared by the Cultural Resource Survey Program, Research Division of the Rochester Museum and Science Center for Union Drilling, Inc.

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APPENDIX A

RESUMES OF KEY PERSONNEL

Biographical Data

J. SANDERSON STEVENS

Senior Archaeologist

EXPERIENCE SUMMARY

Mr. Stevens has over 18 years of experience as an archaeologist throughout the eastern and western United States in work related to compliance with Sections 106 and 110 of the National Historic Preservation Act (NHPA) of 1966, as amended, as well as other federal, state, and local legislation. Responsibilities have included project management and coordination as well as the design, direction, organization, and implementation of both large- and small-scale projects, including all phases of field work, artifact and data analysis, and report preparation. His tasks and responsibilities have also included NEPA documentation for the preparation of environmental assessments (EAs), environmental impact statements (EISs), and cultural resources management plans (CRMPs), for Department of Defense agencies, State Departments of Transportation, and pipeline and transmission line corridor studies.

EXPERIENCE RECORD

Nov. 1994 Date — Parsons Engineering Science. **Senior Archaeologist/Project Manager**. Responsible for project management, proposals, research design, field direction, artifact and data analysis, and report preparation in compliance with Sections 106 and 110 of NHPA, as amended and NEPA guidelines. Projects include Phase I, II, and III investigations of both prehistoric and historic sites as well as historic architectural investigations.

- Phase II Evaluation of Prehistoric Sites for Housing Development in southern Maryland; Miller Smith Homes, Fairfax, Virginia.
- Phase I Inventory of Fiber Optic Transmission System, Vandenberg AFB, California; DoD Armstrong Laboratories Contract, Brooks AFB, Texas.
- Cultural Resources Management Plan and Phase I Architectural/Historic Inventory of Bolling AFB, Washington, D.C.; AFCEE Contract, Brooks AFB, Texas.
- Preparation of EIS and technical support documents for Woodrow Wilson Bridge Improvement Study, Washington, D.C.; Alexandria, Virginia; Maryland State Highway Administration and Virginia Department of Transportation.
- Preparation of EA for Route 32 Roadway Improvements, St. Thomas, U.S. Virgin Islands; Department of Public Works.

March 1987 March 1989 — John Milner Associates, Inc., Alexandria, Virginia. **Project Archaeologist**.

March 1989 March 1994 — John Milner Associates, Inc., Alexandria, Virginia. **Project Manager/Principal Archaeologist**. Responsible for project management, proposals, research design, field direction, artifact and data analysis, and report preparation in compliance with Sections 106 and 110 of the NHPA, as amended and NEPA guidelines. Projects include Phase I, II, and III investigations of both prehistoric and historic sites as well as historic architectural investigations.

Representative DoD projects include:

- Phase I and II investigations for the Naval Facilities Engineering Command.
- Phase I and II archaeological investigations at Fort Belvoir, Virginia.
- Phase I investigations for Indian Head Naval Surface Warfare Center, Maryl: ..
- Phase I and II investigations for the Veterans Administration, Perry Point M .ical Center, Cecil County, Maryland.

Representative DOT projects include:

- Phase I and II cultural resources investigations for the Virginia Department of Transportation; the West Virginia Department of Transportation; and the Maryland State Highway Administration.

Representative projects for private sector clients include:

- Phase I, II, and III investigations in Prince George's County, Maryland for James T. Lewis Enterprises, Ltd.
- Phase III data recoveries in New York and Connecticut for the Iroquois Gas Transmission System.
- Phase I surveys associated with Civil War sites in Prince William and Loudoun counties Virginia.
- Project Coordinator and Project Manager for Indefinite Quantity Contract for the National Park Service, Denver Service Center.

June 1983 – Dec. 1983: Western Cultural Resources Management, Boulder, Colorado. **Project Manager**. Phase I surveys of large scale timber sales in the Black Hills, South Dakota and Wyoming.

Jan. 1983 – May 1983: URS-Berger, Inc., Denver, Colorado. **Assistant Principal Investigator**. Prepared draft environmental impact statement and technical report for the F.E. Warren Air Force Base, Cheyenne, Wyoming, MX Missile Project.

May 1981 – October 1982: Historical Research Associates, Missoula, Montana. **Project Manager**. Directed Phase II evaluations and Phase III data recovery investigations at the Antelope Creek Coal Mines, Converse County, Wyoming; and Phase III investigations of a prehistoric site on the Sun River, Great Falls, Montana.

May 1980 – May 1981: Centuries Research, Inc., Montrose, Colorado. **Project Archaeologist**. Directed Phase I surveys for Shell Oil seismic line studies in Colorado, Utah, and New Mexico.

August 1977 – July 1979: University of Iowa, Iowa City, Iowa. **Research Assistant and Teaching Assistant**. Projects included: Directed Calvin Lake Basin, Paleo-Indian survey; Assistant Director Field School, Decorah, Iowa; Crew Chief Salto Caves (Mesolithic-Roman), Courgne, Italy; Ceramic Analysis of Neolithic artifacts from the Philippines.

EDUCATION

B.A., Anthropology (honors), May 1975, University of Colorado, Boulder, Colorado
M.A., Anthropology, December 1979, University of Iowa, Iowa City, Iowa
B.A., International Relations (deans list), May 1986, University of Colorado, Boulder, Colorado

PROFESSIONAL AFFILIATIONS

Council for Underwater Archaeologists
Council of Virginia Archaeologists
Committee for Maryland Archaeologists
Eastern States Archaeological Federation
Middle Atlantic Archaeological Conference
Society for American Archaeology
Society for Historical Archaeology

PAPERS AND PUBLICATIONS

"Questions Forgotten or Never Asked: Misunderstanding the Issues of Context, Integrity and Significance." Middle Atlantic Archaeological Conference, Ocean City, Maryland, 1996.

"Ceramic Attributes and Accokeek Creek Chronology: An Analysis of Sherds from the Falcon's Landing (18PR13) and the Accotink Meander (44FX 1908) Sites." *North American Archaeologist*, 1996 (in press)(coauthor Michael J. Klein, Ph.D.).

"A Comparison of Technological and Adaptive Strategies between Normanskill Occupations in the Delaware and Hudson Valleys." *North American Archaeologist*, 1995: 16(3):239-279.

"Late Holocene Alluviation and Archaeological Site Burial in Virginia." Middle Atlantic Archaeological Conference, Ocean City, Maryland, 1995 (junior author).

"Examination of Shepard and Potomac Creek Wares at a Montgomery Complex Site (44LD 521) in the Northern Virginia Piedmont, Loudoun County." Middle Atlantic Archaeological Conference, Ocean City, Maryland, 1995.

"Ceramic Trends or Cultural Chronologies. A Comparison of Ceramic Attributes among Accokeek Phase Occupations along the Coastal Plain Potomac." Middle Atlantic Archaeological Conference, Ocean City, Maryland, 1994.

"Collectors or Foragers: A Comparison of Technical Systems and Adaptive Strategies between Normanskill Occupations in the Delaware and Hudson Valleys." Eastern States Archaeological Federation, Albany, New York, 1994.

"Archaeological Data Recovery at the Waterfall Site (191-5-1) Town of Coxsackie, Greene County, New York." 77th Annual New York State Archaeological Association Conference. Niagara Falls, New York, 1993.

"Continuity with Change: Views from an Accokeek Phase Occupation Prince George's County, Maryland." Middle Atlantic Archaeological Conference, Ocean City, Maryland, 1993.

"Archaeological Investigations at Falcon's Landing, Site 18PR131: A Late Archaic through Middle Woodland Occupation, Prince George's County, Maryland." 58th Annual Eastern States Archaeological Federation, Williamsburg, Virginia, 1991.

"Paleoecology, Subsistence Change, and Landscape Alternation During the Late and Early Woodland: A View from Virginia." Middle Atlantic Archaeological Conference, Ocean City, Maryland, 1991.

"Technological Strategies and Interaction Spheres: Result of a Phase I Survey at the Verdon Quarry Site (44HN180), Hanover County, Virginia." 50th Annual Archaeological Society of Virginia, Richmond, Virginia, 1990.

"A Story of Plants, Fire, and People: The Paleoecology and Subsistence in the Late Archai l Early Woodland in Virginia (ca. 4500 to 2500 B.P.)." In *Late Archaic and Early Woodland* , *.rch in Virginia: A Synthesis*, pp. 185-220. Edited by Theodore R. Reinhart and Mary Ellen Hodges. Special Publication of the Archaeological Society of Virginia, 1990.

"Environmental Site Predictors and Prehistoric Settlement Patterns in the Central .mont of Virginia." Middle Atlantic Archaeological Conference, Rehoboth, Delaware, 1989.

"The Mill Creek Site: A Multicomponent Woodland Site in Northeastern Maryland." M .dle Atlantic Archaeological Conference, Rehoboth, Delaware, 1988.

"Subsistence-Settlement Among Pelican Lake and Besant Groups in the Power River Basin, Wyoming." 41st Annual Plains Conference, Rapid City, South Dakota, 1983.

"The Williams Site (13HN10): A Multicomponent Village in Southeastern Iowa, South Dakota Archaeology, Vol. 5:59-84.

"The Southeast Iowa Lake Calvin Paleo-Indian Survey." 38th Annual Plains Conference, Iowa City, Iowa, 1980.

"The Osteoarchaeology of the McKinney Oneota Village." Research Papers of the Office of the State Archaeologist, Iowa City, Iowa, Vol. 2, No. 7, 1980..

"A Model for the Transition from Food Collecting to Food Producing Societies in Northern Italy (12,000 to 5,000 BP)." Master's thesis, University of Iowa, 1979.

"Environmental Change in Africa and Its Effect on the Extinction of *Australopithecus Robustus*." Senior honor's thesis, University of Colorado, 1975.

Biographical Data

JULIE D. ABELL

Archaeologist and Historian

EXPERIENCE SUMMARY

More than eight years experience as an archaeologist and historian related to cultural resources studies in the Mid-Atlantic, Western and Northeastern United States. Responsibilities as an archaeologist have included project direction, field and laboratory supervision, artifact analysis, archival research and report writing. Responsibilities as a historian have included background research, the development of historic contexts, oral history, architectural and historic structures survey and evaluation, and preparation of reports.

EXPERIENCE RECORD

May 1994 Date — Parsons Engineering Science. **Archaeologist**. Responsible for field direction and supervision, archival research and research design, artifact analysis and report writing for Phase I, II and III projects in compliance with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). These projects have included both historic and prehistoric sites, in urban and rural areas, and deeply buried sites along riverbanks and under twentieth-century urban fill. Representative projects include:

- Phase III archaeological data recovery at Square 455, the site of the MCI Arena in downtown Washington, D.C., and for the proposed Whitehurst Freeway modification project along the Georgetown waterfront in Washington, D.C.
- Phase II evaluation of the Kingsview development property in Charles County, Maryland.
- Phase I and II investigations on six blocks in downtown Washington, D.C. for the proposed Washington Convention Center, and at the Southeast Federal Center in Washington, D.C.
- Phase I survey for the York Oil project in Franklin County, New York; for the Beltsville Agricultural Research Center in Prince George's County, Maryland; for the Waverley Farms and Squire Tract, the Weisiko Parcel of the Willow Glen development property, and the Russell Road Landfill on Quantico Marine Base in Prince William County, Virginia; the Richard Jones Park in Fairfax County, Virginia, the Route 340 corridor in Warren and Page Counties, Virginia; and two bridge replacement projects in Mercer and Ocean Counties, New Jersey.

Historian. Responsible for archival research, development of historic contexts, oral history, architectural and historic structures survey and evaluation, and preparation of reports. Representative projects include:

- Background research, oral history and architectural survey at the Lexington Army Depot in Lexington, Kentucky.
- Background research and historic structures survey and evaluation for 47 historic bridges in Maryland.
- Architectural survey of the Route 340 corridor in Warren and Page Counties, Virginia.

- Archival research and development of historic contexts for numerous archaeological sites, including the MCI Arena site (Square 455), the proposed Convention Center site, and the Whitehurst Freeway modification project in Washington, D.C., and the Roseberry Farm site in Prince William County, Virginia.

Dec. 1989 – June 1993: Archeo-Tec, Inc., Oakland, California. **Laboratory Director, Field Supervisor and Research Assistant.** Participation in over seventy-five prehistoric, protohistoric and historic period archaeological projects, with duties encompassing field surveys, excavations and monitoring; laboratory cleaning, cataloguing, curation and analysis of recovered materials; archival research; report writing, editing and compilation. Contributing author for several scholarly monographs currently in preparation.

July 1989 – Nov. 1989: John Milner Associates, Alexandria, Virginia. **Archaeological Field and Laboratory Technician.** Participation in prehistoric and historic period investigations in Washington, D.C., Maryland, and Virginia.

Jan. 1989 – June 1989: Archeo-Tec, Inc., Oakland, California. **Archaeological Field and Laboratory Technician.** Work performed at prehistoric and historic period archaeological sites.

SPECIAL TRAINING

OSHA 40 Hour Hazardous Materials Training

EDUCATION

B.A., Anthropology, December 1988, University of California, Berkeley, California

M.A., Candidate, Applied History, George Mason University, Fairfax, Virginia

PAPERS AND PUBLICATIONS

"What Archaeology at the MCI Arena Site Unearthed About the History of Washington, D.C.'s Water Supply" (working title). Washington History, Volume 9, Number 1, Spring/Summer 1997.

"One Thousand Years of Change: A Look at the Cultural Landscape at the Confluence of the Potomac River and Rock Creek", March 1997, (coauthor Elizabeth Crowell). Paper presented at the Middle Atlantic Archaeological Conference, Ocean City, Maryland.

"Back Yard Water Works: An analysis of the role five privately-owned, nineteenth-century wells and cisterns played in the development of public water systems in Washington, D.C.", March 1996, (coauthor Diane Halsall). Paper presented at the Middle Atlantic Archaeological Conference, Ocean City, Maryland.

SELECTED TECHNICAL REPORTS

Draft Report, Square 455 (51NW115) Archaeological Data Recovery, April 1997, (coauth. Petar Glumac, Brian Crane, Dan Hayes and Marie-Lorraine Pipes). Prepared for EDAW, Alexandria, Virginia.

Section 106 Historic Resources Report for the Proposed Washington Convention Center, December 1996. Prepared by Parsons Engineering Science and the Washington Convention Center Authority for the National Capital Planning Commission, Washington, D.C.

Stage 1A Cultural Resources Survey for York Oil Superfund Site Operable Unit No. 1, October 1996. Prepared by Parsons Engineering Science for Alcoa.

Phase IA Archaeological Investigation of the Livestock and Poultry Sciences Institute, Beltsville Agricultural Research Center, Prince George's County, Maryland, July 1996, (coauthor J. Sanderson Stevens). Prepared for Bernard Johnson Young, Inc., Bethesda, Maryland.

Draft Phase I Archaeological Levels of Action Assessment (LOAA) Replacement of Route 206 Bridge Over Little Shabakunk Creek, Lawrence Township, Mercer County, New Jersey, July 1996, (coauthors Madeleine Pappas and Elizabeth Crowell). Prepared for New Jersey Department of Transportation, Trenton, New Jersey.

Draft Historic Architecture Levels of Action Assessment (LOAA) Replacement of Route 206 Bridge Over Little Shabakunk Creek, Lawrence Township, Mercer County, New Jersey, July 1996, (coauthors Madeleine Pappas and Alice Crampton). Prepared for New Jersey Department of Transportation, Trenton, New Jersey.

Revised Draft Phase I Archaeological Levels of Action Assessment (LOAA) Replacement of Route 9 Bridge Over North Branch Forked River, Lacey Township, Ocean County, New Jersey, July 1996 (coauthors Madeleine Pappas and Elizabeth Crowell). Prepared for New Jersey Department of Transportation, Trenton, New Jersey.

Revised Draft Historic Architectural Levels of Action Assessment (LOAA) Replacement of Route 9 Bridge Over North Branch Forked River, Lacey Township, Ocean County, New Jersey, July 1996 (coauthors Madeleine Pappas and Alice Crampton). Prepared for New Jersey Department of Transportation, Trenton, New Jersey.

Phase I and II Archaeological Investigations at the Southeast Federal Center, Washington, D.C., February 1996 (coauthors Brian Crane, John Rutherford, Sulah Lee, and Leo Hirrel). Prepared for General Services Administration, Washington, D.C.

Phase I Archaeological Survey, Wesiko Parcel, Willow Glen, Prince William County, Virginia, October 1995 (coauthors Janice Artemel and Petar Glumac). Prepared for Willow Glen L.C., Woodbridge, Virginia.

Phase I Archaeological Survey, Russell Road Landfill, Quantico Marine Base, Prince William County, Virginia, August 1995 (coauthors J. Sanderson Stevens and Janice Artemel). Prepared for OHM Remediation Services Corp., Glen Allen, Virginia.

Phase II Evaluation of the Kingsview Development, Sites 18CH34 and 18CH420, Charles County, Maryland, September 1995 (coauthors J. Sanderson Stevens, Carter Shields, and Janice Artemel). Prepared for Miller and Smith Homes, McLean, Virginia.

Historic Bridges of Maryland Survey and Evaluation, September 1995 (coauthor Alice Crampton). Prepared for Maryland State Highway Administration, Baltimore, Maryland.

Addendum To: Phase I Archaeological Survey at the Waverly Farms and Squire Tracts, Prince William County, Virginia, September 1994 (coauthor Brian Crane). Prepared for Disney Design and Development Company, Gainesville, Virginia.

Architectural Survey and Evaluation, Lexington Army Depot, Bourbon and Fayette Counties, Kentucky, August 1994 (coauthors Alice Crampton and Hal Sharp). Prepared for Army Corps of Engineers, Louisville District.

Canon Kip Community House Project, San Francisco, California: Pre-construction Archaeological Testing Program, June 1993.

Archival Literature Search and On-site Archaeological Surface Reconnaissance of the roposed Danville Townhouse Project, City of Danville, Contra Costa County, California, May 1993.

A Literature Search and Archaeological Surface Reconnaissance of the Proposed Prie Re voir Diversion Channel, Tuolumne County, California, May 1993.

Archival Literature Review and On-site Surface Archaeological Reconnaissance of a 2· Acre Parcel of the Trefethen Vineyards Property, Located Near the Intersection of Highway 29 J Oak Knoll Avenue, Napa County, California, February 1993.

One Union Street Development Project, San Francisco, California: Archaeological esting and Data Recovery Program, January 1993.

Archival Literature Search and On-site Archaeological Surface Reconnaissance of a 28 acre Parcel of Land, Located at the Intersection of Highway 4 and Laurel Road, Oakley, Contra Costa County, California, December 1992.

Initial Cultural Resources Study of the Proposed San Francisco Water Recycling Master Plan Project, September 1992.

Archaeological Investigations at 600 California Street, San Francisco, California, August 1992.

Cultural Resources Evaluation of the Proposed Delta Expressway, Contra Costa County, California, July 1992.

Cultural Resources Evaluation of the Proposed Boulder Ridge Golf Course Site, Almaden Valley, Santa Clara County, California, May 1992.

201 Turk Street, San Francisco, California: Pre-Construction Archaeological Testing Program, April 1992.

Archival Cultural Resources Evaluation and On-site Archaeological Surface Reconnaissance of the Recycling and Solid Waste Systems Plan, San Francisco and San Mateo Counties, January 1992.

An Archival Literature Search and On-site Surface Reconnaissance of the Proposed Turlock Area Drinking Water Supply Project, Stanislaus and Merced Counties, California, November 1991.

Archival Cultural Resources Evaluation of the Proposed Main Library Development Project and Two Affiliated Parcels in the Civic Center Plaza Area, San Francisco, California, September 1991.

222 Second Street, San Francisco, California: Archaeological Data Recovery Program, August 1991.

Literature Review, Surface Archaeological Reconnaissance and Subsurface Archaeological Evaluation of Site CA-Pla-215, Roseville, Placer County, California, June 1991.

Archaeological Testing Program of the Marble Valley Property, El Dorado County, California, April 1991.

APPENDIX B

PROJECT CORRESPONDENCE

DEPARTMENT OF THE ARMY
SENECA ARMY DEPOT ACTIVITY
5786 STATE RTE 96
ROMULUS, NEW YORK 14541-5001

REPLY TO ATTENTION OF
Environmental Division

Subject: Review of Draft Phase I Archaeological Surveys for SEAD-12 and SEAD-59/71 at Seneca Army Depot Activity, Romulus, New York

New York State Parks, Recreation,
and Historic Preservation
Historic Preservation Field Service Bureau
ATTN: Mr. Robert Kuhn
Peebles Island
P.O. Box 189
Waterford, New York 12188-0189

Dear Mr. Kuhn:

As part of our responsibility to comply with the requirements of the National Historic Preservation Act (NHPA) of 1966 as Amended Through 1992 (P.L. 89-665 *et seq.*), specifically Section 106 of the Act, we are providing with this correspondence a copy of the Draft reports *SEAD-12 Phase I Archaeological Survey Seneca Army Depot: Romulus, New York, and SEAD-59/71 Phase I Archaeological Survey Seneca Army Depot: Romulus, New York* (Stevens et al. 1998). These surveys were initiated to document existing conditions at two environmental sites prior to the cultural resource investigation effort that would encompass the entire installation.

The Department of the Army has reviewed the enclosed reports. For the report entitled *SEAD-59/71 Phase I Archaeological Survey*, the Army agrees with the recommendation that no further work is recommended or warranted at this site. The report entitled *SEAD-12 Phase I Archaeological Survey* recommends that two sites in this area of the Depot are potentially eligible for the National Register of Historic Places. Although the Army does not disagree with the summary and recommendations for these sites, we request these sites not be considered potentially eligible at this time. A survey effort that will address all sites within the installation boundary is scheduled to begin this year. Once this major effort has been completed, other sites may be discovered that will yield a higher degree of significance and integrity. These two sites will then be reevaluated with other new sites to determine their potential eligibility. These two sites will not be impacted by any ground disturbing activities until a final evaluation and determination can be made.

Please provide your comments on the enclosed documents to this office within thirty (30) days of receipt of this letter. If we do not hear from you within 30 days, we will assume concurrence and proceed. If you have any questions regarding the conclusions and the determinations of the Army, please contact Mr. Steve Absolom at Seneca Army Depot Activity at 607/869-1309. Comments or questions regarding cultural resource technical issues may also be directed to the cultural resources technical support for the U.S. Army Materiel Command, Mr. Stephen P. Austin, at the U.S. Army Corps of Engineers, Fort Worth District, telephone 817/ 978-6385.

Sincerely,

Enclosures

DONALD C. OLSON
LTC, U.S. Army
Commanding Officer

Copy Furnished without Enclosures:

Commander
U.S. Army Corps of Engineers, Fort Worth District
ATTN: CESWF-EV-EC (Mr. Stephen P. Austin)
P.O. Box 17300
Fort Worth, Texas 76102-0300

Commander
U.S. Army Corps of Engineers
ATTN: CENAN-PP-M (Mr. Thomas Enroth)
Building 115
5786 State Route 96
Seneca Army Depot Activity
Romulus, New York 14541-5001

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

CF:
Tom G
Steve A
File

May 14, 1998

Donald C. Olson
LTC, U.S. Army
Commanding Officer
Department of the Army
Seneca Army Depot Activity
5786 State Rte 96
Romulus, NY 14541-5001

Dear Lieutenant Colonel Olson:

RE: ARMY
Seneca Army Depot Closure
Varick/Romulus, Seneca County
95PR2176

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the recent submission in accordance with Section 106 of the National Historic Preservation Act of 1966.

We accept these reports and concur that no additional work is necessary at SEAD-59/71. We also agree that Phase II testing may be recommended at sites A09909.000003 and A09909.000009 (in SEAD-12). We will reserve recommendations for Phase II testing until after the major installation survey is completed.

If you have any questions, feel free to contact Ellen Cesarski at (518) 237-8643 ext. 281. Please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont
Director, Historic Preservation
Field Services Bureau

RLP:rma