C. LYNCH WETLAND REPLACEMENT AREA

1. Site Setting

The proposed Lynch Wetland Replacement Area is located in Blackbird Hundred, east of U.S. Route 13 at the intersection of U.S. Route 13 and SR 71 (Figure 49). The wetland replacement area, which measures approximately 12 hectares (30 acres), straddles the SR 1 corridor. The slightly undulating topography of the project area includes low ridges overlooking shallow basins that are collection points for rainwater and snowmelt. Two bay/basin ponds are present within the proposed wetland, and several others are nearby. Until quite recently the wetland area was agricultural fields, but it had been abandoned for perhaps five to seven years, and by the time of the survey had grown up with a dense mix of brambles and small trees. An occupied, nineteenth-century farmhouse was located just beyond the northern border of the area, and the land to the east was active farmland.

2. Previous Work

A reconnaissance survey of the entire Lynch Wetland Replacement Area was carried out in 1984 by Jay Custer and David Bachman of UDCAR as part of the SR 1 Planning Study (Custer and Bachman 1986a). Within the Blackbird vicinity, UDCAR investigators located more than 180 prehistoric archaeological sites. The sites were almost all located on sandy ridges overlooking bay/basin ponds or other poorly drained wetlands. These landforms appear to have been ideal locales for the exploitation of plant and animal resources by prehistoric populations. Most of the sites were small lithic scatters that probably represented occasionally-occupied resource procurement sites, but a few larger sites that may have been base camps were also discovered. During the 1984 reconnaissance, the Lynch Wetland Replacement Area was still in active agricultural use, and the survey was carried out by surface inspection. Thirty-five prehistoric sites were located in the area immediately surrounding the Lynch Wetland Replacement Area, including three sites (7NC-J-47, 49, and 50) that are at least partially within the boundaries of the wetland replacement area. Sites 7NC-J-49 and 7NC-J-50 yielded no diagnostic artifacts, but UDCAR investigators speculated that Site 7NC-J-50 was a base camp. Site 7NC-J-47 yielded projectile points dating to the Woodland I and II periods.

Phase I survey of the SR 1 corridor, which cuts through the Lynch wetland, was carried out by UDCAR in 1992, but no survey report was available at the time of this writing. Two prehistoric lithic scatters (Sites 7NC-J-196 and 7NC-H-91) were located within the Lynch Wetland Replacement Area. Both sites were undated procurement sites, and the state site forms submitted by UDCAR for these sites indicate that there was insufficient information to determine whether the sites were eligible for listing in the NRHP.

LBA's Phase I survey of the Lynch Wetland Replacement Area was carried out in October 1995. For logistical reasons, the project area was divided into five survey areas. Each survey area occupied an area of high ground, separated by low-lying wetlands. The five survey areas comprised approximately 9.7 hectares (24 acres), or about 80 percent of the Lynch Wetland

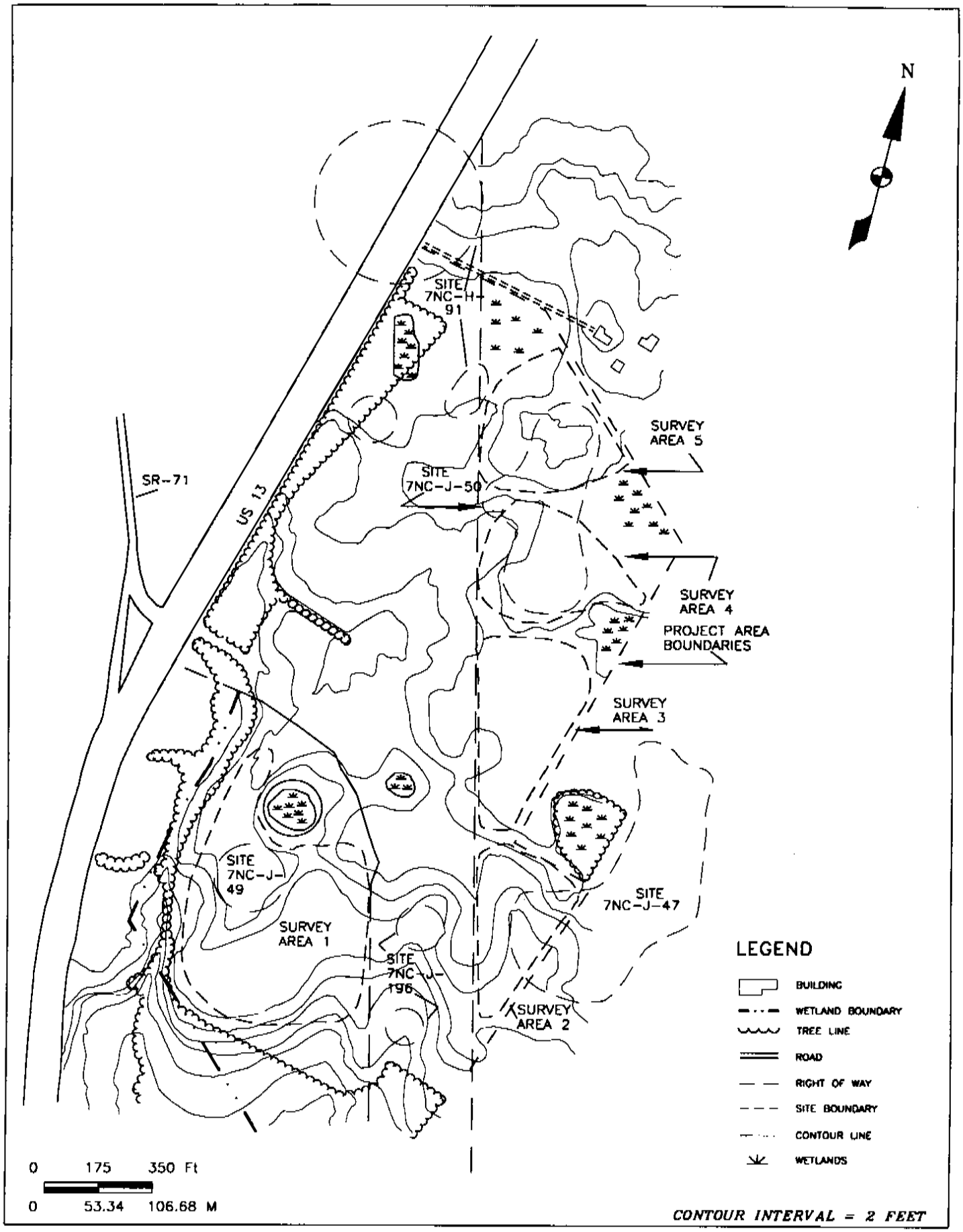

FIGURE 49: The Lynch Wetland Replacement Area, Showing Survey Areas and Previously Identified Sites

Replacement Area. The only areas excluded from survey were those too wet for testing and a few acres along the southern boundary of the project area, which were more than 100 meters from wetlands. All investigated areas were intensively surveyed by subsurface testing at 20-meter intervals. A total of 257 shovel test pits were excavated, yielding 45 historic and 92 prehistoric artifacts. The fieldwork was hindered by a dense growth of pioneer tree species, such as sweet gum and cedar, covering parts of the project area.

3. Survey Area 1

Survey Area 1 comprised the southwestern portion of the wetland, including all the areas west of the SR 1 corridor (Figure 50). This survey area, which contained approximately 3.2 hectares (8.0 acres), was the largest of the Lynch wetland survey areas, and included Site 7NC-J-49, previously identified during the 1984 UDCAR survey. The site was defined by UDCAR as a surface lithic scatter measuring approximately 60 meters (200 feet) in diameter, occupying a low ridge above a circular basin. Soils in Survey Area 1 ranged from clayey loam at the lower elevations to sandy loam along the low ridge lines. Soil profiles reflected past agricultural use of the project area, with a brownish plowzone overlying the yellowish brown and strong brown subsoil.

Of the 68 shovel test pits excavated in Survey Area 1, eight were positive, yielding 11 historic and 12 prehistoric artifacts. The historic artifact sample included several small brick fragments, as well as sherds of whiteware, stoneware, and redware. The historic sample was concentrated along a dirt road along the southern edge of the survey area. Historic artifacts were recovered in Shovel Test Pits 1, 7, and 8. Because of the small number of artifacts recovered, it did not appear that a historic residence ever stood at this location. It seemed more likely that the recovered historic artifacts represented a field scatter associated with one of the nineteenth-century farms known to have existed east, north, and south of the project area (see Figure 10).

Site 7NC-J-49, the Lynch Wetland No. 1 Site

The 1995 Phase I survey confirmed the existence of Site 7NC-J-49, which was initially identified during UDCAR's 1984 planning study. Prehistoric artifacts, consisting of quartz, jasper, and chert flakes, were recovered from two separate locations. One cluster, centered around Shovel Test Pits 40, 65, and 68, was in the location where Site 7NC-J-49 was placed by UDCAR. The highest density of cultural material was found in Shovel Test Pit 20, 60 meters from the first cluster. Shovel Test Pit 20 yielded seven flakes and a piece of FCR. Shovel Test Pit 64, at a distance of 10 meters from Shovel Test Pit 20, added one flake to this second cluster. LBA designated Site 7NC-J-49 the Lynch Wetland No. 1 Site. As defined by the Phase I survey, the site measured about 100x120 meters (325x380 feet). Site 7NC-J-49 was a small, plowed, prehistoric procurement site. Two surveys encompassing this site, one by LBA and one by UDCAR, failed to recover anything but a handful of flakes, and all artifacts were recovered from plowed contexts. Therefore, it was concluded that Site 7NC-J-49 had very little information potential and was not considered to be potentially significant. No further work was recommended in Survey Area 1.

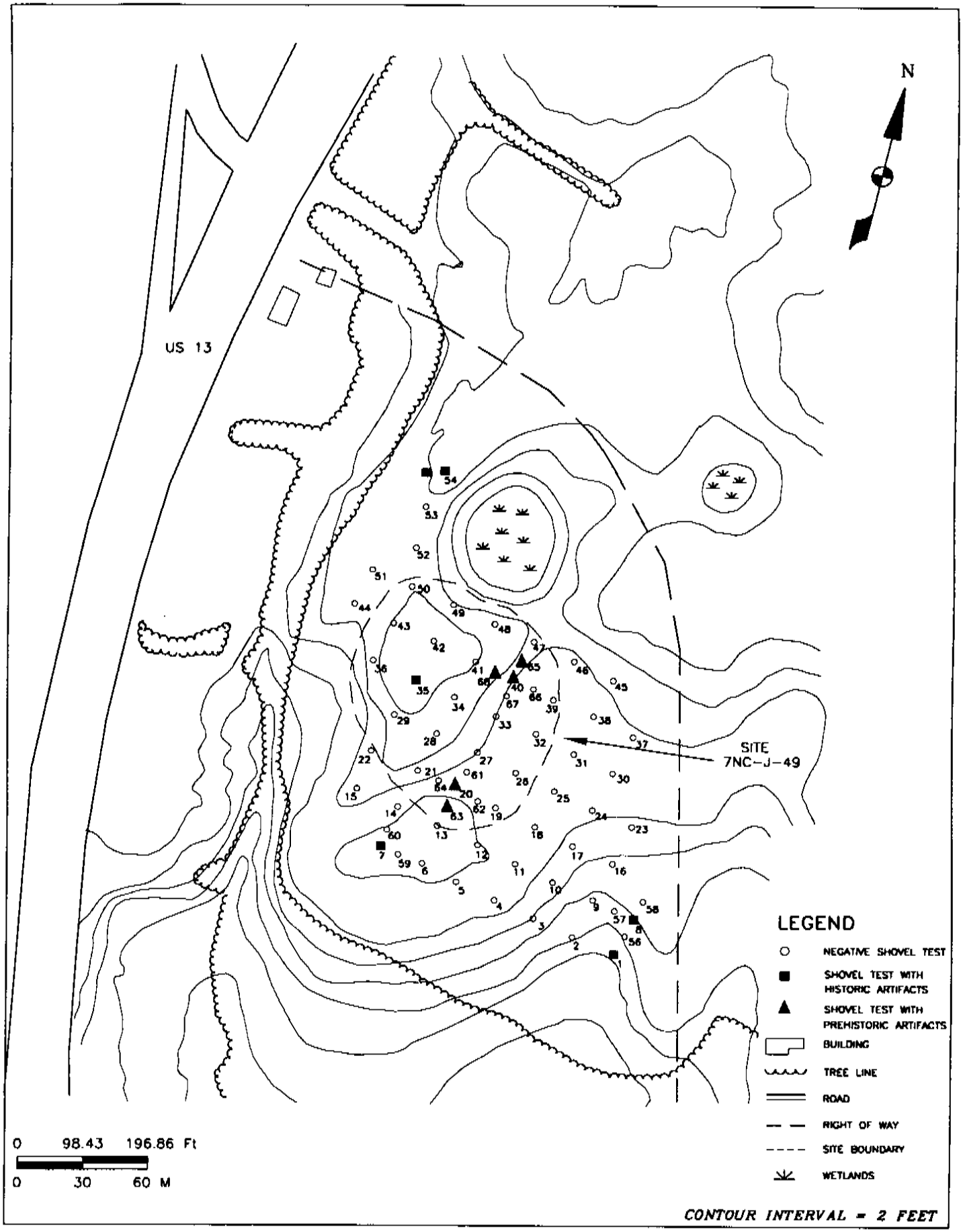

FIGURE 50: Lynch Wetland, Survey Area 1 and Site 7NC-J-49, Plan of Testing

4. Survey Area 2

Survey Area 2 covered approximately 1.6 hectares (4.0 acres) in the southeastern corner of the Lynch Wetland Replacement Area and included part of Site 7NC-J-47, an extensive surface lithic scatter identified during the 1984 UDCAR archaeological survey (Figure 51). Forty-two shovel test pits were excavated in Area 2, 31 on the 20-meter grid and 11 additional close-interval shovel tests around positives. Phase I testing yielded three historic and three prehistoric artifacts. The historic sample consists of three small brick fragments recovered from Shovel Test Pit 18. Surrounding shovel tests yielded no further evidence of historic occupation or deposition. The prehistoric artifacts are considered part of Site 7NC-J-47, which was designated the Lynch Wetland No. 2 Site.

Site 7NC-J-47, the Lynch Wetland No. 2 Site

As defined by UDCAR investigators, Site 7NC-J-47 surrounded on three sides a small, wooded bay/basin feature just outside the Lynch wetland right-of-way. The site measured approximately 240 meters north-south by 120 meters east-west (800x365 feet). UDCAR dated the site to the Woodland I and II periods on the basis of two projectile points. Several flakes were also recovered. LBA's 1995 survey recovered three isolated flakes from plowzone contexts in Shovel Test Pits 3, 21, and 24. However, supplemental shovel tests excavated around each of the positive shovel test pits failed to recover any additional prehistoric cultural material. Shovel Test Pits 21 and 24 were contained within the established boundaries of Site 7NC-J-47, while Shovel Test Pit 3 was located 40 meters outside the site to the south.

Site 7NC-J-47 was large, but it had been plowed, and both the UDCAR and LBA investigations demonstrated that the artifact density was quite low. It was therefore concluded that the site had little information potential, and no further work was recommended in Survey Area 2.

5. Survey Area 3

Survey Area 3 occupied about 1.6 hectares (4.0 acres) in the eastern portion of the wetland area, on a low ridge (see Figure 51). The initial survey included 39 shovel test pits on the 20-meter grid. Nine additional shovel test pits were excavated around positive shovel tests. The soil profiles indicated a rather sandy matrix which reflects the higher topographic position of Survey Area 3. During the Phase I investigations, three sherds of redware and whiteware were recovered, probably a field scatter from a standing nineteenth-century farm to the north. One prehistoric site was discovered, in a location not within any of the sites previously defined by UDCAR. This site was designated Site 7NC-J-219 (the Lynch Wetland No. 3 Site).

Site 7NC-J-219, the Lynch Wetland No. 3 Site

The Lynch Wetland No. 3 Site measured approximately 40 meters north-south by 50 meters east-west (130x160 feet). It occupied the crest of a low ridge, adjacent to wetlands on the southeast, east, and northeast and only 50 meters from additional wetlands to the west. A total of 33

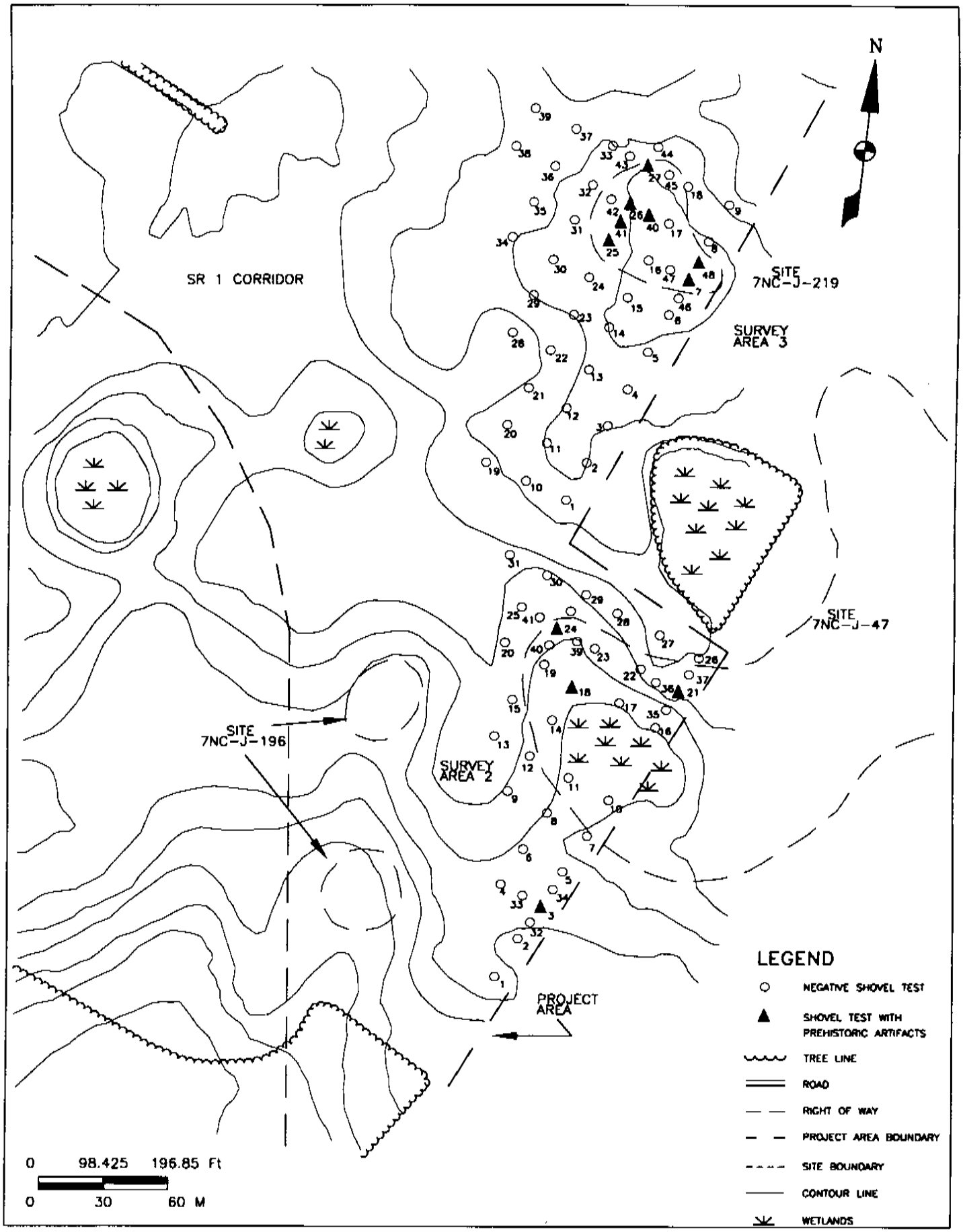

FIGURE 51: Lynch Wetland, Survey Areas 2 and 3 and Sites 7NC-J-47 and 219, Plan of Testing

prehistoric artifacts, all lithic debitage or FCR, were recovered from six positive shovel tests. Of these, 29 were recovered from a 10x20 meter cluster defined by Shovel Test Pits 25, 26, 27, 40, and 41. In this locus, cultural material was recovered from both plowzone and subsoil contexts. The remaining two flakes in the sample were retrieved from two adjacent shovel tests, Shovel Test Pits 7 and 48. This secondary, smaller cluster lies approximately 40 meters east of the primary artifact concentration. As Table 4 shows, the material recovered from the site was largely quartzite and quartz.

TABLE 4 SUMMARY OF PREHISTORIC LITHIC ASSEMBLAGE SITE 7NC-J-219

	RAW MATERIAL							
ARTIFACT TYPE	Chert	Jasper	Rhyolite	Quartz	Quartzite	Chalcedony	Not Assgn.	TOTAL
Debitage								
Flake Fragments	1	.	.	2	2	.	.	5
Flake Shatter	.	1	.	.	.	.	.	1
Block Shatter	1	.	1	3	6	.	.	11
Decortication Flakes	1	.	1	1	.	.	.	3
Early Reduction Flakes	1	1	.	2	4	1	.	9
Fire-Cracked Rock	.	.	.	.	.	.	4	4
TOTALS	4	2	2	8	12	1	4	33

The Lynch Wetland No. 3 Site contained the highest density of artifacts located by LBA in the Blackbird vicinity. Artifacts were recovered from below the plowzone, and in this sandy soil, deposits buried by aeolian action were considered possible. Site 7NC-J-219 was, therefore, considered to be potentially significant. After consultation with DelDOT and DESHPO staff, Phase II significance evaluation was carried out in 1996, and the results will be reported in an upcoming volume.

6. Survey Area 4

LBA excavated 50 shovel test pits within the 1.6-hectare (4-acre) confines of Survey Area 4. Thirty-five of these were placed on the 20-meter grid, and 15 were close-interval shovel tests placed around positive grid tests (Figure 52). Soils are relatively well-drained sandy loam. Two historic artifacts were recovered, probably associated with the farm to the north, just outside the project area. Twenty prehistoric artifacts were also recovered, all from shovel tests within or immediately adjacent to the defined boundaries of Site 7NC-J-50, previously recorded by UDCAR during the 1984 survey as a large surface lithic scatter. LBA has designated Site 7NC-J-50 as

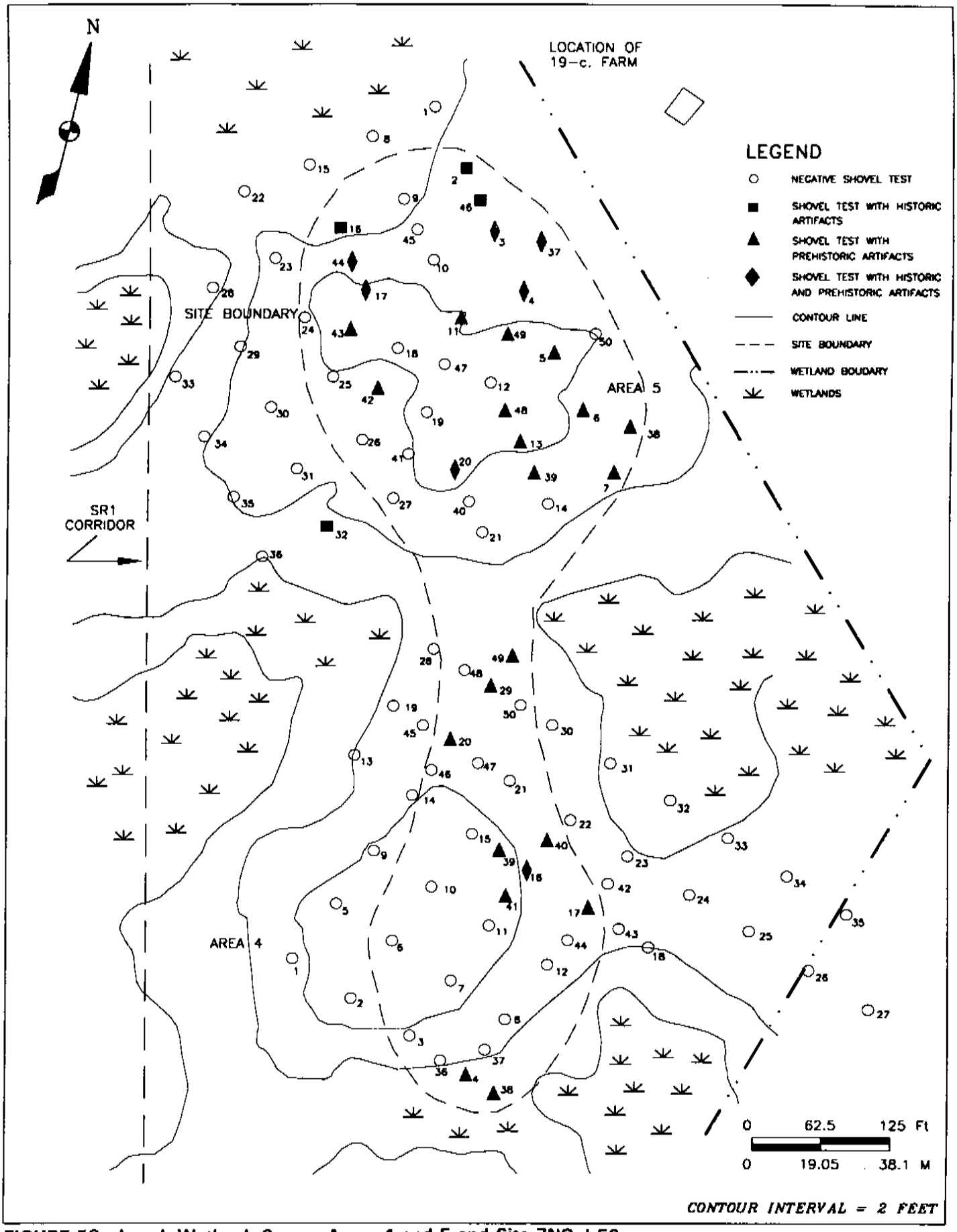

FIGURE 52: Lynch Wetland, Survey Areas 4 and 5 and Site 7NC-J-50

the Lynch Wetland No. 4 Site. As defined by UDCAR, this site spans the small drainage that separates LBA Survey Areas 4 and 5, and it is discussed with the results of Survey Area 5 below.

7. Survey Area 5

Survey Area 5 encompassed 1.6 hectares (4.0 acres) in the northeastern corner of the wetland replacement area, adjacent to the nineteenth-century farm which lay just outside the project area (see Figure 52). Fifty shovel test pits were excavated in Survey Area 5, 36 at 20-meter intervals. Soils were characterized as sandy loam. Twenty-six historic artifacts were recovered, including whiteware, clear bottle glass, wire nails, brick fragments, and unidentified metal fragments. The frequency of historic artifacts increased closer to the extant farmstead at the northern margins of the project area. Prehistoric artifacts were recovered from 15 shovel test pits, all of which were associated with the previously identified Site 7NC-J-50 (the Lynch Wetland No. 4 Site).

Site 7NC-J-50, the Lynch Wetland No. 4 Site

As defined by UDCAR, Site 7NC-J-50 occupied two low but distinct rises separated by a small drainage or swale. Overall, the site measured about 250 meters north to south and up to 100 meters east to west (800x300 feet). UDCAR investigators recovered two biface fragments, one sidescraper, 117 flakes, and 30 to 40 pieces of FCR during a surface survey of the site. They identified the site as a "base camp" and assigned it to their High Significance category. On the southern rise, in LBA Survey Area 4, LBA investigators recovered 23 prehistoric artifacts from 11 positive shovel test pits. The prehistoric artifacts included quartz and jasper debitage, one possible hammerstone, and one retouched flake tool (Table 5). Artifact density was one flake per shovel test, except in that part of the site around Shovel Test Pits 39 (N=5), 40 (N=2), and 41 (N=6). All but one of the prehistoric artifacts, a chert flake from Shovel Test Pit 20, were recovered from plowzone contexts.

On the northern rise, in Survey Area 5, a total of 24 prehistoric artifacts were recovered from 15 positive shovel tests, including one bipolar core (Shovel Test Pit 39), one retouched flake (Shovel Test Pit 11), one possible hammerstone (Shovel Test Pit 17), and 21 pieces of debitage, primarily quartz, chert, and jasper. The artifact density was low, and the artifacts were fairly evenly distributed across 17 shovel tests. In one portion of the site, five consecutive shovel test pits on the 20-meter grid yielded prehistoric artifacts. Shovel Test Pits 6, 13, and 48 each yielded single flakes from a subsoil context. These three finds formed a small cluster of artifacts from undisturbed subsoil contexts within the site as a whole. The shovel testing undertaken by LBA slightly expanded the dimensions of the site on the northern rise.

Site 7NC-J-50 was designated High Significance after the UDCAR surface survey, and the LBA investigation supported that conclusion. The number of artifacts recovered was substantial, and a locus of possible subplowzone deposits was located. After consultation with DelDOT and DESHPO staff, Phase II significance evaluation of the site was carried out in 1996, and the results will be reported in an upcoming volume.