ARCHEOLOGY, CULTURAL RESOURCE MANAGEMENT

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MANAGEMENT REPORT

Phase I Archeological Investigation of the Proposed Dualization of Route 141 from Route 100 (Montchanin Road) to U.S. Route 202 (Concord Pike) in New Castle County, Delaware.

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PHASE I ARCHEOLOGICAL INVESTIGATIONS AND PROPOSAL FOR PHASE II ARCHEOLOGICAL SURVEY OF THE PROPOSED DUALIZATION OF ROUTE 141, RT 100 (MONTCHANIN RD) TO U.S. 202 (CONCORD PIKE) NEW CASTLE COUNTY, DELAWARE

DELDOT PROJECT 84-106-01 DELDOT ARCHEOLOGY SERIES NO. 43

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By

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INTRODUCTION

The purpose of this transmittal is to present a management report presenting the results of Phase I archeological investigations of the proposed dualization of Route 141 from Route 100 (Montchanin Road) to U.S Route 202 (Concord Pike) in New Castle County, Delaware. Field investigations were conducted by Thunderbird Archeological Associates, Inc. (TAA) between October 16, 1985 and November 24, 1985 for the Delaware Department of Transportation (DELDOT).

Dr. William M. Gardner served as principal investigator, Timothy Thompson served as archival researcher and Randolph Taylor served as field supervisor.

A total of nineteen historic and four prehistoric sites were encountered during the course of the investigations. In this report, each site is designated with an "X" followed by the site field number (eg X-1). Where Cultural Resource Management (CRM) numbers have been assigned by the Bureau of Archeology and Historic Preservation (BAHP), these are given as well. Recommendations are presented for additional field investigations (Phase II) and background research for eight of the historic sites and one prehistoric site. In addition, further background investigations are recommended for two site "areas". These site

areas are extensive and additional background research will be necessary for making subsequent recommendations for Phase II field work of these locations. No Phase I investigations were conducted for the Dupont Diary (X-14) and the Blue Ball Tavern (X-13) since this work has already been performed. A proposal and budget are presented in the appendix which cover these recommendations more thoroughly.

FIELDS METHODS

The project area was divided into eleven linear segments and two areas (Segments 1-11 and Areas 1-2)(Figure 1). Field methods were in accordance with what was outlined in the proposal and included walkover surveys for those areas where ground visibility was good. These were cultivated fields and coverage was at 100 percent with crew members spaced every 15 feet. Subsurface testing in the form of 2.5 X 2.5 feet shovel tests was employed in those areas where ground visibility was poor. Intensity of coverage was governed by the probability for the presence of archeological remains based in part on archival and historic map research, or in the absence of documentary evidence, predictive models for the presence of archeological sites developed and used by Jay Custer (1984) were utilized in determining which areas required subsurface testing. Shovel tests were spaced every 100 feet depending on field conditions and site circumstances. In many instances, shovel tests and surface reconnaissance were

supplemented with a bucket auger in areas where there was a potential for buried land-surfaces underneath either fill or slope wash. Where archeological remains were extant and visible above the ground (such as foundation remnants, terrace walls, etc.), these sites could be accounted for in documentary sources and the sites were simply photographed and notes were taken in the field regarding the number and types of structures identifiable from close visual inspection. All sites and shovel tests were plotted on topographic maps provided by the Delaware Department of Transportation.

RESULTS OF FIELD INVESTIGATIONS

The results of the field investigations are presented below for each Segment and Area beginning at the westernmost portion of the project area with Segment 1. Sites where further investigations are required are noted and a brief description of the recommended work is provided. Segments and Areas are delineated on Figure 1. All sites and shovel tests are shown on the Delaware Route 141 Project Planning Study 1":100' map set which accompanies this report and referred to herein as Figure 2. In the text, specific sites are noted, for example, as X-1(Figure 2:1).

Segment 1

Segment 1 (Figure 1) is located near the intersection of Route 141 and Route 100 (Montchanin Road). It measures approximately 300 by 1200 feet and is bordered to the south by the Columbia Gas building and to the north by Route 141. There is a gentle slope to the east towards the Brandywine Creek which gradually increases at the eastern end. Ground cover is entirely in manicured grass and a fair amount of alteration to the original topography is apparent visually and is indicated in the profiles of the shovel tests. This alteration appears to have been cut and fill. There was no indication from the archival investigations for the presence of historic period sites and the area was considered to have a low to moderate probability for containing prehistoric sites. Thirty shovel tests were placed across the field in three rows spaced every 100 feet. Each shovel test was excavated to sterile subsoil. The profiles across the area were all very similar and consisted of an A_p or a fill horizon resting on an unweathered silt C horizon. Artifacts were recovered from the A^p which were predominantly small fragments of coal and included a lesser amount of ceramics and glass. The presence of the artifacts is interpreted as typical field scatter, or perhaps fill, and does not reflect the presence of significant archeological remains. There was no evidence for subsurface features.

No significant archeological remains were recovered from Segment 1 and no further work is necessary.

SITE X-1

Archival investigations revealed a school house, site X-1 (Figure 2:1) on the other side of Route 141 from Segment 1 between a cemetery (which is still in use) and Montchanin Road. The school is present on the Rea and Price (1849), Beers (1860), Beers Atlas (1868), Hopkins Atlas (1881), and the Baist Atlas (1892). These maps indicate that the school house was located mid-way between the west cemetery wall and Montchanin road up against what is now Route 141. There is currently an abandoned cinder block garage at this location and the intersection has been extended to the north. Eight shovel tests were excavated where the school house was most likely to be, based on the historic maps cited above. The results indicate several layers of recent fill resting on sterile sub-soil. There were no indications of structural elements that could be associated with the school house. It was apparently obliterated when the Route 141 intersection was expanded to the north. No further work is recommended for the school house site.

Segment 2

Segment 2 (Figure 1) is a 1000 foot section of woods immediately to the east of Segment 1. Many of the trees are quite large and greater than 100 years old. They are predominantly deciduous types including oak and beech. Ground cover consists of a heavy leaf mat with some heavy underbrush in a few areas. This segment was generally steeply sloping and the

proposal specified a walkover survey of the entire area which failed to reveal any significant archeological remains. Archival investigations failed to uncover evidence for the presence of historic period sites. No additional work is recommended for Segment 2.

Segment 3

SITE X-3

Segment 3 (Figure 1) is a small area on the west bank of the Brandywine which extends from the existing Route 141 bridge 450 feet to the south almost to the C.I.D. office (C.I.D. apparently is the abbreviation for Charles I. Dupont). From east to west, Segment 3 extends from Brandywine Creek up to and including the old Wilmington and Northern Railroad bed. Archival research revealed at least three structures in this area which are no longer standing. These include a frame house and two multi-family workers' houses. According to architects drawings obtained from the Hagley Library (E.I.duPont,1902), the frame house was located underneath the Route 141 bridge, and remains of the house are presumed to have been obliterated during the bridge construction. The other two structures (X-3, Figure 2:3) are shown on the architectural drawings between the present bridge and the C.I.D. office, an area which appears to have suffered considerably less disturbance than the area immediately under the bridge. These two buildings are shown in early photographs

(provided by Richard duPont, photographer unknown, 1906), and are known as the Pigeon Row House and the Long Row House. Subsurface testing was conducted in the less disturbed area with two different goals. The first goal was to locate portions of the foundations of the two structures noted above as well as any associated features which might be present. The second goal was to assess the potential for more deeply buried land surfaces which might contain prehistoric sites situated on the Brandywine floodplain. The first goal was easily accomplished because portions of what appeared to be foundations belonging to these two structures were visible on the surface. The southwestern corner of the Long Row house was noticeable at the northern end of the C.I.D. parking lot and slightly up the slope. The architectural plans indicated that this building measured 40 by 100 feet. Using these dimensions and starting at the exposed southwest corner, two shovel tests were laid out at points corresponding to the mid-points of the east and west walls. This was done in order to confirm that the visible foundation corner was the foundation we were looking for and to determine the extent of subsurface structural remains. The two shovel tests did reveal the foundation walls as expected. The western wall foundation footing was encountered in shovel test 6 at a depth of less than .4 feet below the present surface. The eastern wall foundation was encountered in shovel test 7, forty feet from the western wall and at a depth of 1.1 feet below the current ground surface. The difference in elevation between the east and west

wall indicate that the first or ground floor was cut into the bank and that there is a good possibility for a considerable portion of the foundation, including cellar fill, to lie intact below the present ground surface. The profile in shovel test 6 indicated a thin layer of humus resting on the foundation surface with rubble and fill on the eastern side (the interior of the house) while the western side contained a sub-soil. Again this confirms the location and orientation of the structure as expected from the plans (E.I.duPont,1902).

The Pigeon Row house is shown as slightly smaller and again is a multi-family dwelling. A single shovel test (#8) was excavated at the approximate mid-point of the eastern wall of this structure. The house location is southwest of the Long Row house which places it above the existing parking lot serving the C.I.D. office. Shovel test 8 revealed a stone wall feature but was not as well constructed as the foundation footings associated with the Long Row House. The rock wall feature in shovel test 8 is in the proper location for the Pigeon Row house and is interpreted as either the eastern wall foundation footing, or as a related feature such as a retaining wall. Further excavations will be required to determine which is the case.

Other features in the vicinity of the two structures were evident on the surface which were noted and included on Figure 2:3. These include several circular depressions, a circular stone feature which appears to be a well, and a circular concrete

feature which again may be a well. Additionally, plans provided by DELDOT of the area drawn at the time of the present Route 141 bridge construction show an old well further to the north. Additional testing will be required for the two structures as well as the other features noted above. Testing should also consider the likelihood that other features associated with the two structures may be present.

As noted above, the second goal for testing in Segment 3 was to determine wether or not buried land surfaces might be present adjacent to the Brandywine which might contain earlier historic period sites or perhaps a prehistoric occupation on alluvial sediments. Shovel tests 1 through 3 were placed in a line extending from the existing road surface to the base of the railroad embankment for the purpose of providing a profile cross-section. Shovel test 1 was excavated to a depth of 2.8 feet and an auger test was taken down to a total depth of 6.5 feet below the present surface. All soil from the excavation and from the auger test was screened. The results indicated 13 separate fill/soil zones, each excavated or screened in separate levels. Levels 1 through 7 and level 12 contained historic artifacts. Levels 1 through 11 are fill episodes while level 12 is interpreted as a buried A horizon consisting of a dark brown silt loam and indicating a possible earlier land surface. Several fragments of coal were recovered from the auger dirt from this level. Level 13 was a dark yellowish brown fine sandy silt and is interpreted as an alluvial C horizon. Ground water was

encountered at the transition between levels 12 and 13.

Shovel test 2 was placed fifty feet due east of #1, however, a concrete sewer casing and iron pipe were encountered in this unit and the unit was closed at that point.

Shovel test 3 was placed near the base of the railroad bed embankment and the results indicated a 0.8 foot A_p horizon containing numerous historic artifacts. This horizon rested on top of a sterile fine sandy clay colluvial subsoil.

In summary, the results of shovel tests 1 through 3 indicated the presence of at least one buried land surface which may contain significant archeological remains. The extent of this buried surface could not be precisely determined but must extend to a point somewhere between shovel tests 1 and 3.

Additional testing is required in this area in order to determine the extent of this buried surface and to assess the potential for the presence of significant archeological remains that may be associated with it.

Segment 4

Segment 4 (Figure 2:2 & 2:6) is located along the east bank of Brandywine Creek and begins 450 feet south of the present Route 141 bridge. It includes the area between the creek and Rising Sun Road. From the bridge, it extends approximately 2600 feet to the north in a 200 foot wide path. Here it runs parallel to Route 141. on the west side of the road.

The entire segment is in mixed deciduous forest and much of

it is relatively steep. Ground cover consists of a heavy leaf mat in addition to spotty areas of thick underbrush.

Like Segment 3, this area was rich in historic sites, most of which are associated with the industrial development along the Brandywine beginning in the early 1800's. In spite of the present ground cover, foundation remnants of dwellings and industrial buildings were evident over most of the segment. Field testing in the form of excavation units was unnecessary at this stage since so much was evident above ground from the foundation remains. Each set of structures was photographed and plotted on Figures 2:2 and 2:3. A brief description of the sites within this area is presented below, beginning at the southern-most end of the segment. The descriptions are presented oriented to a dirt road which follows the Brandywine Creek beginning at the southern end of Segment 4. Each of these site areas is designated with a capital letter which is keyed to Figures 2:2 and 2:3. Areas A through B are included under the X-4 site designation, while Areas C through I are included under X-2.

Area A : (Figure 2:3) This area consists of a series of foundations which begin at Walker's Mill and extend into the project area forming a continuous line of dwelling sites. There are a series of at least three terraces with foundations and backyards present on each. Numerous wells and trash dumps were noted in these backyard areas. The northern end of this series of dwellings extends

approximately 150 feet into the southern end of the project area.

Area B : (Figure 2:3) A large circular stone lined cistern measuring 15 feet in diameter was noted here. It is located on the south side of the Route 141 bridge, 120 feet from the dirt road which follows the creek and 50 feet from the base of the bridge. No other structural features were evident in the area and the temporal affiliation is not known, although its location and construction suggest it may be contemporaneous with the other structures in Area A.

[note: Areas C through I are included under X-2]

Areas C & D :(Figure 2:3) A depression cut into the bank just east of the dirt road was noted at each of these locations. There were no visible foundations but the general appearance of these depressions suggests a possible dwelling site in each case. The depressions measure approximately 20 feet by 20 feet and the heavy leaf cover obstructed surface visibility. These two locations are just outside the project area boundary but are included in this discussion because they are probably related to the other industrial and dwelling sites in Segment 4. Following the creek road and heading north,Area C is located 270 feet and Area D is 340 feet from the Rt. 141 bridge. Both are located just east of the road.

Area E : (Figure 2:3) Area E measures 80 feet by 30 feet and, like C and D, is a large depression cut into the upper bank just east of the creek road. In this instance, stone and brick rubble were noted in the interior of the depression and a large structure appears to have been present. It is within 50 feet of a mill and related structures (F and G below) and while it is situated just outside the project area boundary, it is probably related to the mill complex which does fall within this boundary.

Area F : (Figure 2:3) Structure F is the actual mill footing and is located on the west side of the creek road. Most of the structure has been removed but the wheel support and remnant walls are still present.

Area G : (Figure 2:2) This series of structures begin on the east side of the creek road across from the mill structure (F). They are apparently industrial buildings and extend 75 feet up the slope from the creek road (and hence into the project area). They follow the creek road for approximately 500 feet and consist of a series of structures with much of the stone footings and walls still present.

Area H : (Figure 2:3) This is a single structure located east of G and approximately 50 feet from the Route 141 road surface. Much of the stone foundation walls are

present and the structure is rectangular in shape measuring 25 by 15 feet. A stone fence is located to the south of the structure which extends up and down the slope.

Area I : (Figure 2:2) This structure consists of a two sided retaining wall made from very large boulders. It measures 50 feet on the lower (creek) side and is 25 feet deep. It appears to be a footing or base for a large structure and is located just north of G.

Segment 5

This segment (Figure 1) includes the entrance area to the DuPont Experimental Station and has been extensively graded. Archival investigations failed to reveal the presence of historic period sites and because of the extensive land surface alteration, no survey work was conducted for this segment. No additional work is recommended for Segment 5.

Segment 6

Segment 6 (Figure 1) lies on the northeast side of Route 141 and lies completely within the DuPont Country Club golf course and driving range. The segment extends 4000 feet from the intersection of Rockland Road to the edge of the woods marking the end of Segment 4. The project area is 200 feet wide for the entire length of this section. The grounds keeper from the country club was helpful in identifying those sections of the golf course which have been landscaped for green and fairway

construction and these areas were avoided during testing. A total of 22 shovel tests, which were placed according to topographic conditions, were excavated along the segment. All but two shovel tests revealed slight amounts of cultural material which are interpreted as field scatter and of no significance.

SITE X-18

Shovel tests 11 and 15 revealed a relatively high amount of historic artifacts in comparison with the other test units in this segment. However the location is next to the Number Seven Tee and the context of the artifacts is that of a fill. The artifacts are not considered to be significant. In addition, there was no archival evidence for the presence of a site at this location and no further work is recommended.

The W. Husband site (X-5) was known to be in the general vicinity and was brought to our attention by the BAHP. The site was located in the field and was shown to us by the golf course grounds keeper who was familiar with the site. It is located well outside the project area.

No further work is recommended for Segment 6.

Segment 7

Segment 7 (Figure 1) follows New Murphy Road for a distance of 1500 feet north of Rockland Road. The majority of the northern section is in a wooded lot while the southern section is open with a grass cover. The southern section is the location of

site X-6.

The section in the woods was tested with a total of nine shovel tests. The units were spaced every 100 feet in a single row following a line 50 feet from the Route 141 road surface. All units were excavated to subsoil and no significant archeological remains were recovered from the wooded section of Segment 7.

Site X-6

The BAHP has on record at site at the intersection of Rockland Road and New Murphy Road. It is known as the T. Husband site (N546) which is shown on the Beers (1860) and later maps. There are no above ground remains of the house itself, which was located on the south side of New Murphy Road. There is however a portion of what appears to be a barn on the north side of the same road and is more than likely related to the house site. Two standing stone walls remain of the barn which also has a few farm implements lying on the ground immediately next to the walls.

A single test trench was excavated at the house site in order to test for the presence of buried remains associated with the house. The trench was placed where the north wall of the structure was thought to have been. The results of the test unit revealed a thin humus layer lying on stone and brick rubble which had the appearance of fill. No intact walls were evident however the test trench probably falls within the interior of the house. The results of the trench do demonstrate the presence of a structure at the location which corresponds to the historic maps.

Additional testing will be required at the site in order to determine if the site has integrity and its potential eligibility for nomination to the National Register of Historic Places.

Segment 8

Segment 8 (Figure 1) is a 650 foot long section situated between Route 141 and New Murphy Road. Much of the area has been covered with fill by the owner, I.C.I. for the construction of a parking lot. The southwest corner of the segment is however relatively undisturbed and is covered by grass. A total of nine shovel tests were excavated here however no significant archeological remains were recovered and archival investigations failed to produce any indication that historic period sites fell within this section. No further work is recommended for Segment 8.

SITES X-7, X-8, X-9 & X-10

Three standing structures are located near Segment 8 along Old Murphy Road,and one structure is located on Rockland road further to the east. These are on record at the BAHP as being potentially eligible for the National Register. They include the William Murphy house N544(X-9), N545 (X-7), N9396(X-8)(Figure 2:8),and the A. Bird house(N494)(Figure 2:13). Two of the houses

are currently occupied and the other two have only recently been boarded up. No field testing was done at these sites during the Phase I investigation as the presence of archeological remains associated with these structures is clearly obvious. Recommendations for phase II testing are included for all but N9396 in the attached proposal.

Segment 9

Segment 9 (Figure 1) lies on the east side of Route 202 (Concord Pike) and extends from the reservoir up to Weldin Road. The corridor is 200 feet wide measured from the edge of Concord Pike. The entire area in Segment 9 was in corn and surface visibility was very good at the time of the survey. Field investigations consisted of walkover survey with 100 % coverage. Archival investigations revealed a smithy at the Blue Ball intersection on the east side of Concord Pike. It appears on the 1849 Rea and Price map as being situated within the confines of Segment 9.

SITE X-16

A dense concentration of historic artifacts (X-16, Figure 2:13) was recovered from this location which may be related to the "smithy" site. The artifacts were concentrated in an area measuring approximately 150 by 100 feet. While the majority of the artifacts recovered from the site are relatively recent, there is a sufficient amount of early material in the assemblage to justify additional field work especially in light of the fact

that the surface concentration is in the correct location for the "smithy". Additional field work will be necessary to test for subsurface structural remains and features in addition to determining the age and integrity of the site.

No other archeological sites were recovered from the Phase I field investigations of Segment 9.

Segment 10

Segment 10 (Figure 1) follows the south side of Weldin Road from Faulk Road 1200 feet to the east. It is 200 feet wide from the edge of Weldin Road and its western section is wooded while the eastern section was open and in corn at the time of the Phase I investigations. Surface visibility was very good for the section in corn and surface reconnaissance of that area failed to reveal any significant archeological remains.

SITE X-17

The wooded section of Segment 10 contains ruins of "Chestnut Hill" (X-17), a large plantation site which has been abandoned for some time but is nearly complete. The site is quite extensive with the remains of numerous structures including a domestic building and several barns and outbuildings. Additional field work is required for the site however, further archival study is necessary prior to designing the field testing program.

Such additional research may save considerable time in the field if for example the function and placement of the various structures can be determined through documents. Therefore the recommendations given here are only for additional archival research with the understanding that the Phase II field work will follow.

Segment 11

Segment 11 (Figure 1) straddles the golf course road which extends south from Weldin Road for a distance of 1400 feet. The project area lies on either side of the road and is 200 feet wide. The west side of the road was planted in corn at the time of the survey and surface visibility was very good. Field investigations here were restricted to a surface reconnaissance with 100% coverage. No significant archeological remains were recovered from the west side.

Site X-23

Field conditions on the east side of the road required sub-surface testing because of heavy field grass. A single row of shovel tests was placed along this section and were initially spaced at 200 foot intervals. This spacing was reduced when a few prehistoric artifacts were recovered from some of the test units. Five of the twelve shovel tests contained prehistoric artifacts (X-23). Figure 2:17 shows the shovel test placement,

and the units with prehistoric artifacts are also indicated. The artifacts recovered from the site include 6 flakes and one biface fragment. This is a relatively low density of artifacts considering the amount of testing. All artifacts were recovered from the plow zone and there was no evidence or indication that subsurface features are present. However, testing in this location was restricted to the project right-of-way along the golf-course road and it is felt that the site is likely to extend further to the east closer to Matson Run. The site is located across Weldin Road from X-22, also on the west bank of Matson Run. Recommendations for additional testing for X-22 are included with the recommendations for X-23 later in this report because of their close proximity to each other.

Areal Surveys

In addition to the linear segments just described, there are two portions of the project areas designated for areal survey. The first of these, Area 1, is located on the west side on Route 202 (Concord Pike) on either side of Rockland Road (Figure 1). Its northern boundary follows a portion of Old Murphy Road where Segment 8 joins it from the north. The western boundary extends southward crossing Rockland Road approximately midway between Old Murphy Road and the Blue Ball intersection. This boundary continues southward following Alapocas Run until it meets Edgewood Road, which defines the southern border of Area 1. The

extreme northern section of Area 1 consists of a wooded area of predominantly deciduous trees. The remaining southern portion consists of farm land which was planted in corn at the time of the survey.

Two sections of the wooded area were selected for subsurface testing. Archival research revealed no evidence for the presence of historic period sites within this area, and the area can be considered to have a low probability for containing significant prehistoric sites based on the remoteness from major streams. The first area selected, STA-1 (Figure 2:12) was a level area situated on a slight knoll in the northeastern section of the woods. The headwaters for Alapocas Run lie to the east, while a smaller drainage head lies to the west. Both of these drainages are about the same distance from the testing area and, in both cases, are intermittent streams at the nearest points. Three rows of shovel tests were placed on the flat portion of the knoll with four units in each row. Spacing was at 100 foot intervals, and each unit was excavated to subsoil. No archeological remains were encountered during the testing of this area and no further work is recommended.

The western intermittent stream flowing through the wooded portion of Area 1 was chosen as the second area for testing, STA-2(Figure 2:8 & 2:12). Here a series of shovel tests was placed on either side of the stream. Flat, well drained tracts adjacent

to the stream were tested, the number and placement of units depending on the size and configuration of each tract. No prehistoric sites were discovered in STA-2, however, two 20th century trash dumps were discovered, both included as X-19. None of the artifacts recovered from the two dumps are early enough to be considered historically significant and testing in each area failed to detect any evidence for structures which could be associated with the dumps. No additional work is recommended for the wooded portion of Area 1.

The southern portion of Area 1 is farmland which was mostly in corn at the time of the survey. Visibility was very good in all but a small area, on either side of Alapocas Run, which was covered with a thick grass.

Archival research revealed two potential sites in the area north of Rockland Road along Concord Pike. In both cases these sites are present on the Beers (1860) and the Beers Atlas (1868). The first site, X-12 (Figure 2:13), appears as a structure near the Blue Ball intersection and is shown as belonging to duPont & Co. on the latter map. The second structure (X-11) is shown as a residence belonging to R. Smith on the 1860 map and latter belonging to W.H. Bird. Its locations is along Concord Pike across from the present cemetery.

Field methods for this portion of Area 1 were by walkover reconnaissance at 100% coverage. Visibility was very good and although some artifacts datable to the late 1800's were recovered from the general vicinity of these two sites, they are considered

to represent field scatter. No firm evidence was recovered for either of these sites on the ground. It appears as if the previous dualization and expansion of Concord Pike may have obliterated one or both of these sites.

No historic sites were discovered in the cultivated portions of Area 1 north of Rockland Road, however, two small prehistoric lithic scatters were discovered, one on either side of Alapocas Run.

The first lithic scatter recovered from this area is designated X-20 (Figure 2:13) It is located on a small knoll overlooking Alapocas Run on the west side of Concord Pike across from Lombardy Cemetery. Collecting conditions were favorable and field methods included walkover reconnaissance at 100% coverage. The artifacts recovered were debitage including 14 quartz flakes and 1 chert flake in addition to 5 quartz chunks. No diagnostic artifacts were recovered. The site dimensions are approximately 100 by 150 feet comprising a very thin lithic scatter.

The second lithic scatter is designated as X-21 (Figure 2:13) and is located in a similar setting but on the other side of the stream. It is situated on a small knoll just north of Rockland Road. The site area encompasses approximately 150 by 250 feet. Collecting conditions and field methods were identical to

X-20. The artifacts recovered from the site include the following:

1 quartzite corner-notched point (Kirk)

1 quartz point fragment (untyped)

1 quartz biface, early stage

1 quartzite core fragment, with cobble cortex

1 quartz core, unifacially worked

1 quartz chunk, bifacially worked

6 quartz flakes

1 quartzite flake

4 quartz chunks

Both X-20 and X-21 are interpreted as small lithic scatters and both are situated on upland knolls where there is unlikely to be buried land surfaces or features. Since it is doubtful that additional field work would provide new information, no further work is recommended for either site.

Area 1 on the south side of Rockland Road was divided into two sections based on surface conditions. The cultivated portion comprises most of the area and collecting conditions were very good at the time of the survey. Field methods for this area included walkover survey at 100% coverage. The uncultivated portion is adjacent to Alapocas Run and is covered by dense grass. This was designated as STA-3 (Figure 2:13) and subsurface testing was required at this location.

Results from both sections, including the testing at STA-3, failed to recover significant archeological remains other than thinly dispersed field scatter. Aside from the previously identified historic sites on the south side of Rockland Road, Blue Ball Tavern,X-13 and the duPont Dairy,X-14 (Figure 2:13), no additional work is required.

Area 2

Area 2 comprises a cultivated field north of Weldin Road. The entire area was in corn at the time of the survey and collecting conditions were very good. Field methods consisted of walkover survey at 100% coverage.

A single prehistoric site, X-22 (Figure 2:17) was discovered in the southeastern corner of the field adjacent to Matson Run.

Artifacts recovered from the site include the following:

1 quartzite point (Morrow Mountain I)

1 quartz small stemmed point (untyped)

1 abraded milling stone

4 quartz core fragments

1 quartz biface, early stage

1 quartz biface, late stage

27 quartz flakes

15 quartz chunks

The site is considered potentially significant for the several reasons. First, the artifact classes recovered suggest more than simply a lithic scatter. The milling stone and the various stages in reduction represented by the debitage suggest a certain degree of permanence and a variety of activities not expected for a lithic scatter. Second, two factors suggest a potential for the presence of buried features. These include the relative degree of permanence suggested by the artifact classes,and the topographic setting. The site is situated at the end of a ridge toe next to a stream and there is a possibility for buried deposits with associated artifacts.

Additional work is recommended for the site to determine its integrity and to better define its extent. Subsurface features may be present below the plow zone and there may be buried stratified deposits of either colluvial or alluvial origin.

As noted previously, X-22 and X-23, while located in different arbitrarily defined survey areas, they are actually in the same topographic setting along Matson Run. They are only separated by Weldin Road and a few hundred feet. For this reason these two site are included together in what is considered a "resource area". Recommendations for additional testing at these two Sites (appendix I) are included together.

SUMMARY

Phase I archeological field and archival investigations for the proposed dualization of Route 141 resulted in the identification of nineteen historic and four prehistoric archeological sites or potential sites within the general vicinity of the project area. Recommendations for additional work (Phase II testing) are presented for eight of the historic and one of the prehistoric sites. In addition, two site areas (includes X-2, X-4 and X-17) with extensive and complex components were identified which will require further archival investigations prior to designing Phase II field investigations. Details of the proposed Phase II investigations are provided in a separate document which details the testing strategy.

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Beer's Atlas of Delaware, Map of Brandywine Hundred, 1892

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APPENDIX I

PROPOSAL

141 EXTENDED

PHASE II ARCHEOLOGICAL INVESTIGATIONS

APPENDIX II

PUBLIC INFORMATION HANDOUT

Proposal
Route 141 Extended
Phase II Archeological Investigations

Thunderbird Archeological Associates
Woodstock, Virginia

December, 1985

Note: Budgets for all ten site locations from pages 2, 5, 6, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 25, 26, 28, 30 & 31 have been deleted.

141 Extended, Phase II, Proposal summary:

Specific proposals and budgets for Phase II investigations at several sites in the Route 141 extended corridor are included here. Phase I investigations have indicated the liklihood that archeological remains are present at each of these sites, and the purpose of the Phase II work is to determine whether or not the archeological remains at the sites are significant with regard to the criteria for eligibility to the National Register of Historic Places. At two sites, Keg Factory Site Area and the J.R. Weldin Plantation Site, background research is proposed as a preliminary step toward the preparation of an archeological base map. This has been done because of the extensive remains evident at the surface and the desire to obtain as much information as possible about the function and distribution of these features prior to the mapping process. After the background work is completed separate proposals for the mapping and testing program will be submitted, as addenda to the work proposed here.

Background work, only, has also been recommended at the Blue Ball Tavern site, since test excavations have been completed there, but the archival research is cursory. At the remainder of the sites, background work and test excavations have been provided for in the cost proposals. All of the sites are adjacent to or within National Register Districts which have been defined primarily on the basis of the architectural resources present within them.

No background work has been recommended to complete the necessary investigations for the prehistoric component at site X22. The general background context for prehistoric sites has been adequately researched previously, and is less site specific than that required for historic sites.

A combined report on all of the research proposed in the attached proposals will be prepared together with the results of the survey phase for which an informal letter report has been prepared, following the scope of work for this project.

The amount of work required to complete adequate investigations at each site has been calculated rather carefully, based on previous experience in Delaware and elsewhere in the Middle Atlantic Region. If there are any questions regarding the proposals or the work proposed, please contact us and we will be glad to address them.

Proposal for Phase II Background and Field Investigations
Row House Site Area

Field investigations revealed the remains of several archeological features in this area which is located on the west side of Brandywine Creek and just south of the existing Route 141 Bridge. Remains of two foundations, a stone well cap, a concrete well or privy cap, a bottle dump, and several sizeable depressions whose function is not clear were discovered during the survey. The foundations have been tentatively identified by reference to photographs and local informants as the "Long Row House" and the "Pigeon Row House", and the other features are presumably related to them. In addition to those features, a series of test units between them and the existing bridge suggested that a considerable amount of fill had been placed in this area over an older surface. In order to evaluate and determine the extent and significance of the resources located in this area we are proposing additional background investigations and test excavations. If the results justify it a Determination of Eligibility will be prepared for this site.

The preliminary background research prepared for the Phase I survey work indicates that the documentary history of this location is complex. A series of overlapping property holdings were located here, although the details were not completely worked out in the Phase I work because of the complexity of the property documents. The structures mentioned above functioned as worker's housing, but it is possible that remains associated with an earlier Mill, Gilpin's Mill dating prior to 1813, are located in this area. Additional background research is proposed to help unravel the history of this property and the activities that took place there. Materials that may shed additional light on this have been identified in the documentary collections at the Hagley Foundation and other sources at the Delaware Archives will also be investigated. Fifteen days of background work is scheduled.

Field Investigations will be completed to confirm the identity of the foundations, determine whether or not the well and/or privy features contain significant archeological remains, evaluate the origin and function of the depressions, identify and evaluate any midden deposits associated with the occupations in the site area, and penetrate the fill covering the northern portion of this site area to determine if significant archeological remains are located there. All but the the last mentioned activity will be accomplished with hand excavations carried out within a grid to be established in the site area, and using methods appropriate to the particular feature under investigation. Four-foot wide trenches will be excavated down the long axes

of the two structure foundations to determine the condition and contents of any cellar fill that may be present within the foundation lines. Five-by-five-foot test pits will be placed behind and adjacent to the structures to identify midden deposits associated with the occupations, and the area around and within the well and privy(?) will be exposed to evaluate those features. All soil contexts that are intact will be screened -- fill and disturbed soil horizons may be removed without screening, or sampled The area between the foundations and the existing bridge is covered with a deep deposit of fill, identified during the survey. Sample areas will be exposed here using a backhoe supplied by the Delaware Department of Transportation under the supervision of the archeological superviser. The fill will be removed to a depth just above the old intact soil horizon (identified as a surface containing coal during the survey phase) and the remainder of the fill will be removed by hand. Any features observed will be mapped and evaluated. Some sample excavations may be placed into features thus identified, if necessary to evaluate these features. The following work activities are planned:

Row House Site Area, Phase II Field Work

Test "Long Row" (?) house, trench, 4' x 100' = 400 sq. ft./6.25 sq. ft per person day	=	64 person days, crew
Test "Pigeon Row" (?) house, trench 4' x 80' = 320 sq. ft. /6.25 sq. ft per person day	=	51.2 person days, crew
Test three wells and/or privies @ two person days each:	=	6 person days, crew
Clean and map Backhoe cuts = to 400 sq. ft./37.6 sq. ft. per person day	=	10.6 person days, crew
subtotal, crew person days	=	131.8 person days
divided by a six person crew	=	22 crew days
contingency, 3 days	=	25 work days

Proposal for Phase II Background Investigations
Keg Factory

Investigations completed during the Phase I survey by Thunderbird Archeological Associates indicated that extensive archeological remains were located on the east side of the Brandywine in the neighborhood of the existing Route 141 bridge. Copies of old plans examined at the Hagley Foundation indicated the presence of structures that were probably worker housing associated with Breck's Mill south of the present bridge approach, and a factory complex designated as "Keg, Woolen & Cotton Fact." on the late nineteenth century Hopkins map to the north. The field survey discovered an extensive complex of terraces, foundations, and other features associated with these occupations. It is clear that next step in a field evaluation of these archeological remains will be the preparation of an archeological base map of this area, followed by selective testing to determine the extent, integrity, and significance of the various components present in this site area. It is also clear that mapping and testing activities would be benefitted by additional information on the location and function of various site components, both evident and concealed.

Because a wealth of documentary and diagrammatic information on this location is available at the Hagley Foundation and elsewhere in the area, we are proposing to take ten days and complete a thorough review of all the archival information available on this area before preparing a specific proposal for Phase II field investigations of this area. Resources available at the Hagley Foundation, the Historical Society of Delaware, and the Delaware State Archives will be reviewed to obtain specific information on the layout and function of the various archeological components that were located here. This information will be used to prepare a set of priorities for Phase II field investigations and a proposal for that work will then be forwarded to be handled as an addendum to the contract that enables the background investigations. An additional five days is allocated to prepare a report on the results of the findings that will be included in the final report on this Phase II investigations. This procedure will insure that the most effective and economical use will be made of the time allocated for the field investigations.

A considerable amount of research has gone into the interpretation and partial reconstruction of the Dupont industrial complex on the west side of the Brandywine Creek by the Hagley Foundation. Those components represent only a fraction of the industrial activity that was being carried out

in the industrial district here however, and a complete understanding of this activity cannot be achieved unless at least some measure of preservation is given to the other industrial components present. If significant archaeological remains of this remaining industrial activity are present, then some effort to at least extract the data from them will be desirable, if they will be threatened by construction. This proposal represents a first step in evaluating these remains.

Proposal for Phase II Background and Field Investigations
T. Husbands Site

This site is located at the intersection of Route 141 ("New Murphy Road") and Rockland Road. A structure is shown here on the historic maps and a test trench placed during the survey showed a rubble deposit presumably associated with the structure. Background research and test excavations are proposed here to evaluate the extent, integrity and significance of archeological remains located here. Archival sources will be consulted to identify the owners and occupants of the property and to make an assessment of their position in the community. Documentation at the Hagley Foundation, The Delaware Historical Society, and the Delaware State Archives will be examined. Ten days of research time is proposed for this research. Fifty feet of four-foot-wide trench will be excavated in the area where the structure foundation is expected to define the limits of that feature. In addition, ten five-foot-by-five-foot test squares will be distributed in the back of the structure and on the north side of Route 141 where the barn and other service buildings appear to have been located. The purpose of these test units will be to locate midden deposits and other artifact bearing features associated with the occupation of this site. Ten days of field time for a crew of six has been allocated for this work.

Proposal for Phase II Background and Field Investigations
Sweeney House Site

Although no testing was carried out during the Survey Phase, map research and the architectural evaluation (Thompson 1985) indicate that there was an occupation in this location by the middle of the nineteenth century. Accordingly, additional background research and test excavations are proposed to evaluate the extent and integrity of the archeological remains located here. Background research will be carried out at the Delaware State Archives and the Hagley Foundation to provide the historic context for the resources at this site. Ten days has been allocated for this research. Field work will consist of the placement of ten five-foot-by-five-foot test units at the rear of the structure to locate midden deposits, privies, etc. Five days will be occupied with this work, for a crew of six people. This house and associated spring house are listed as contributing structures in the proposed Nemours Historic District.

Proposal for Phase II Background and Field Investigations
William Murphy House Site

Because of an illness in the house no field work was carried out at this structure during the survey phase. The structure appears on the Rea and Price Map of 1849, and the architectural evaluation suggests that the house may have been built toward the beginning of the nineteenth century (Thompson 1985). Like the Sweeney House there is no apparent disturbance around this structure, and archeological remains in the form of midden, privies, etc. would be expected, related to the early occupation of the house. Additional background research is proposed to help fill out the historic context of the site, and field investigations are also proposed to identify and evaluate the archeological remains. Approximately ten five-foot-by-five-foot test units will be placed at the rear of the house to locate these remains. This work will be accomplished in five working days. This house is also a contributing structure to the proposed Nemours Historic District.

Proposal for Phase II Background and Field Investigations
Bird-Husbands Site

The Bird-Husbands house is located on the south side of Rockland Road, east of the Dupont Institute. This house appears on historic maps and the architectural evaluation suggests that it dates from the early part of the nineteenth century, although it has been modified. There has been massive filling to the west of the house, but the backyard area, where privies and midden features would be expected, appears to be relatively undisturbed. A modern garage is present, and a macadam parking area are also present. Additional background study is proposed to clarify the property history and to provide historic context. Ten five-foot-by-five-foot test units are proposed to identify and evaluate the integrity of the archeological remains at this site. The house is listed as a contributing structure to the proposed Nemours Historic District.

Proposal for Phase II Background Investigations
Blue Ball Tavern: N-542

Previous work has been completed at this location by Mid-Atlantic Archaeological Research, Inc. (MAAR 1980). Testing revealed the presence of foundations and other features, which suggest that the site has sufficient integrity to return significant archeological data. Therefore no additional investigations were carried out during the survey activities completed by Thunderbird Archeological Associates. The referenced report provides a chain of title and a very brief discussion of the documentary history of the property (MAAR 1980:II-16). While the previous field work is sufficient to demonstrate the presence of intact archeological remains, the documentary study is too brief to adequately provide the historic context for the site. Accordingly, we are recommending that additional historical background research be completed in order to prepare a Determination of Eligibility statement that adheres to the current standards of the National Register of Historic Places.

Since the preliminary documentary work has been completed, five days is proposed to complete a detailed examination of the tavern licenses (the referenced report is based on a "spot check"), tax records, and other materials located at the Delaware State Archives in Dover and in the collections of the Hagley Foundation. This material will be used to provide a more thorough discussion of the historic context of the site location and to develop a statement of significance that includes a more detailed comparison between the history and archeology of this site and other similar contexts, such as the Rising Sun Tavern at Stanton (Thompson 1984).

The report for the work proposed here will consist of a revised Determination of Eligibility incorporating the results of previous field and background investigations, and current archival research.

Proposal for Phase II Background and Field Investigations
Smithy Site

The Rea and Price map indicates a "smithy" or blacksmith shop across the Concord Pike from the Blue Ball Tavern. This location is cultivated at the present time, but an intense concentration of artifacts was observed there during the survey phase investigations. The materials observed included domestic refuse, and it is likely that a domestic occupation adjoined the smithy, in a fashion similar to that observed at the Wilson-Slack site (Coleman et al. 1985). Additional background research is proposed to provide historic context for the site. Ten days of work at Delaware State Archives, The Delaware Historical Society, and Hagley Foundation will be completed. Field work is proposed to identify remains below the plowzone that may possess archeological integrity. Ten days of work by a crew of six with supervisor will be carried out. The equivalent of ten five-foot-by-five-foot test units will be excavated. They will be distributed according to the distribution of surface materials, and may be modified to follow features encountered during the testing.

Proposal for Phase II Background Investigations
J. R. Weldin Plantation Site

To the northeast of the Smithy Site, on Weldin Road, an extensive complex of ruins is located, including the foundations of several structures, stone fences, roads, etc. An archeological base map will be desirable to help guide the design of a testing program, but, as in the case of the Keg Factory Site, more extensive background research will be helpful to identify and orient some of the more obvious features present on the site. Sources available at Delaware State Archives, Hagley Foundation, and The Delaware Historical Society will be examined to discover information about the organization and layout of this extensive domestic and agricultural site.

This site will be of particular interest because it appears to represent a site representative of a wealthier farmer than some of the others in the study area. The artifact assemblages from this site will provide points of comparison with those of other sites, to help define the range of material goods available at particular points of time within a single market area. After the background research is completed, a proposal to prepare the site map will be submitted as an addendum to the work proposed here.

Route 141 Extended
Proposal for Field Investigations
Prehistoric Component X22

An extensive scatter of lithic materials was located just to the north of Weldin Road during the Phase I survey. Material recovered included cores, bifaces and flakes in sufficient amounts to suggest the possiblity that there may be some undisturbed contexts present below the plow zone. In order to test for this possiblity we propose to place and screen a series of two-and-a-half-foot-by-two-and-a-half-foot shovel tests across the main axes of the scatter to look for buried soil surfaces and/or features. Forty of these units will be distributed across the surface of the site. A week's field time for a crew of six has been allocated to this work. No background work has been included since the prehistoric contexts are fairly well-controlled from the existing literature, and are less site-specific than the historic sites.

see attached DOT Biblio. for correct reference

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