

Figure 23. Areas of site with 10 or greater metal detector hits.

**Table 5. Metal Detector Results at the Moore Site**

Grid Location	Results (# of Hits)
N505 to N435 Line	0
N505/E480	0
N505/E485	1
N505/E490	3
N505/E495	1
N510/E480	0
N510/E485	1
N510/E490	0
N510/E495	1
N515/E480	0
N515/E485	1
N515/E490	1
N515/E495	1
N520/E455	4
N520/E460	9
N520/E465	34
N520/E470	46
N520/E475	25
N520/E480	3
N520/E485	5
N520/E490	3
N520/E495	2
N525/E455	3
N525/E460	7
N525/E465	9
N525/E470	16
N525/E475	47
N525/E480	4
N525/E485	7
N525/E490	1
N525/E495	4
N530/E455	1
N530/E460	4
N530/E465	6
N530/E470	23
N530/E475	35
N530/E480	4
N530/E485	11
N530/E490	7
N530/E495	5
N535/E455	1

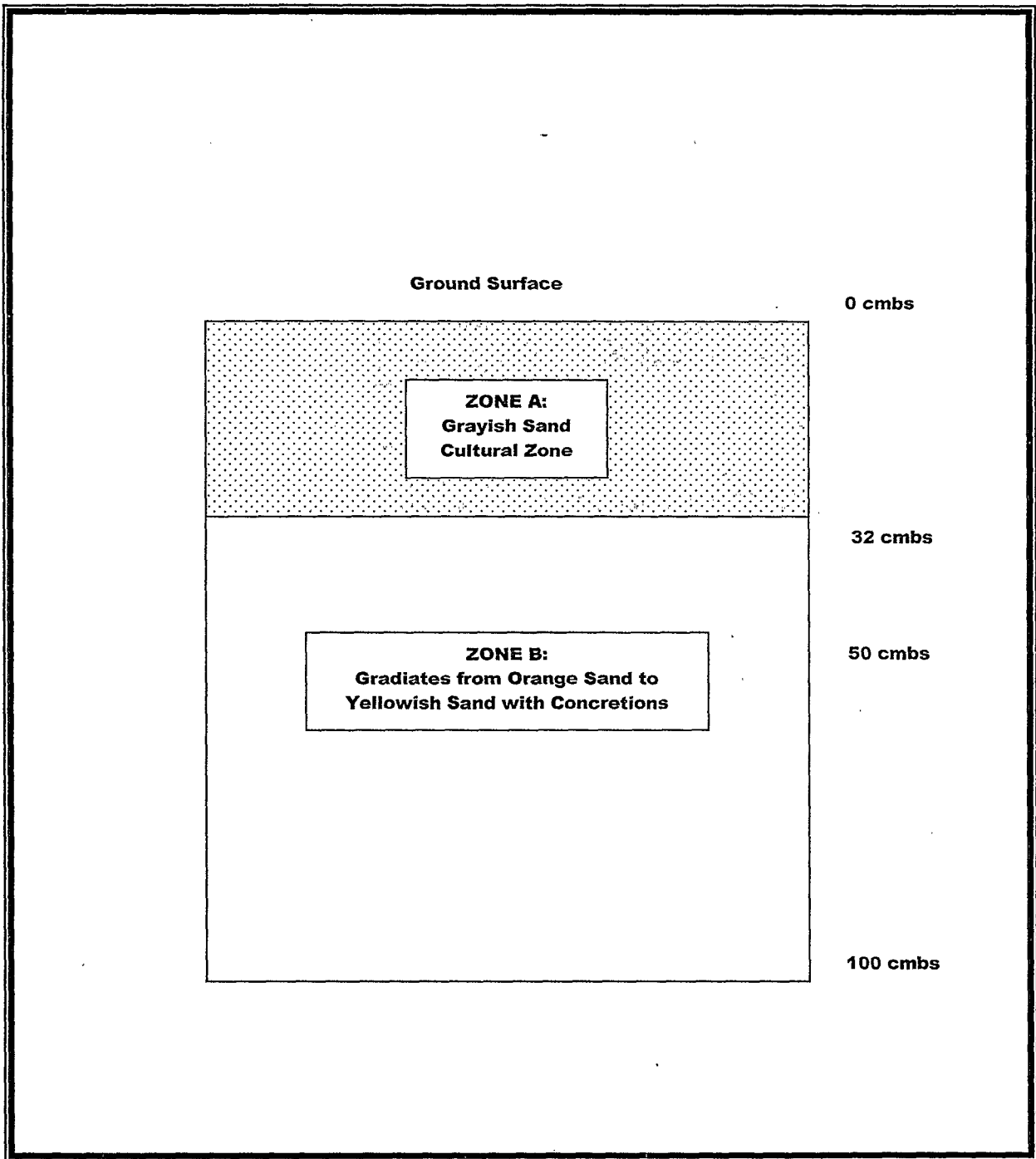
**Table 5. Metal detector results at the Moore Site (continued)**

Grid Location	Results (# of Hits)
N535/E460	3
N535/E465	9
N535/E470	10
N535/E475	37
N535/E480	9
N535/E485	6
N535/E490	9
N535/E495	2
N540/E455	0
N540/E460	0
N540/E465	5
N540/E470	6
N540/E475	4
N540/E480	2
N540/E485	0
N540/E490	6
N540/E495	2
N545/E455	0
N545/E460	0
N545/E465	0
N545/E470	4
N545/E475	2
N545/E480	2
N545/E485	0
N545/E490	1
N545/E495	0

### 9.2.3 Shovel Testing

Shovel testing also indicated a pattern of artifact distribution which identified the location of the house site. It also identified the location of a septic system drain pipe and hand made septic tank (Feature 1), a soil anomaly that may be the site of the December 1951 explosion (Feature 2), and a second trash/refuse pit (Feature 3). Based on the shovel testing two soil zones were identified at the site. Zone 1 contained the planted sod and a soil layer that ranged in color from gray, to bluish gray, to very dark gray. An average thickness of Zone A was 32 cm (12.6 in) thick and was identified as the cultural layer. No artifacts were found below this soil zone. Zone B was the second layer of soil and was observed to the maximum depth of 100 cm below surface (100 cmbs) or 3.3 ft below surface. This soil ranged from a dark orange color to a light yellowish tan or light yellow. This layer was filled with natural soil concretions (Figure 24). It should be noted that the soil color range was dependent on the presence or absence of moisture in the soil and amount present. This effected the soil color observations in the field.

Shovel testing found artifacts scattered almost across the entire site from the N500 line. If you discount the 1-2 items found in each of the shovel tests located at N510/E495, N510/E500, and N500/E495 then the artifact distribution area can be further confined to north of the N525 transect line,



**Figure 24.** Typical soil profile within shovel tests across the site

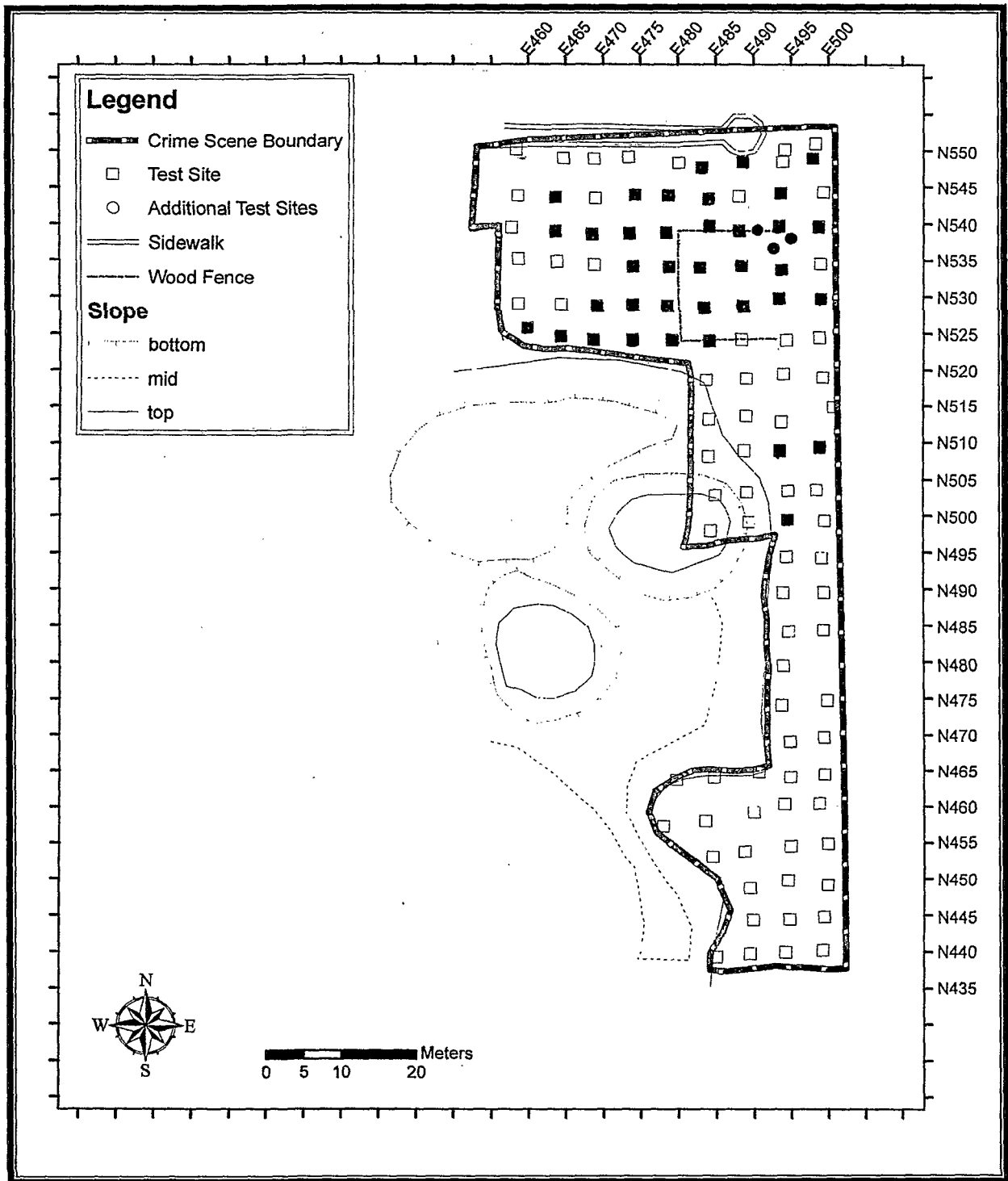
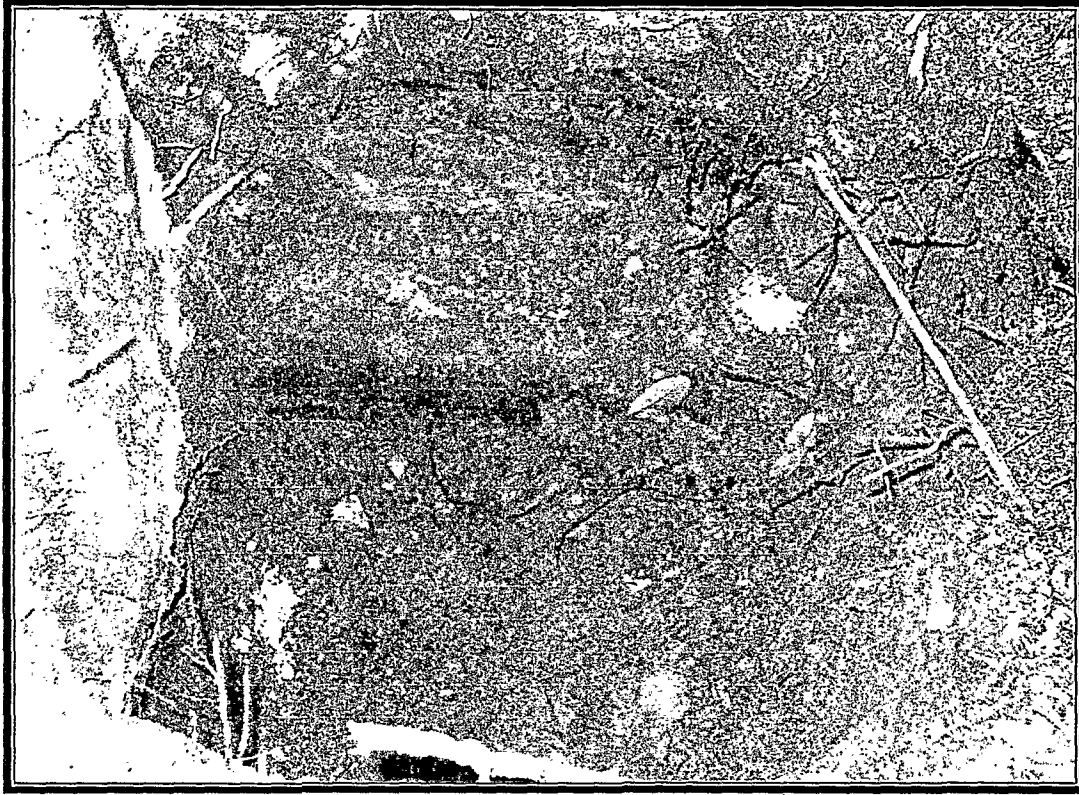


Figure 25. Construction artifacts/debris distribution within shovel tests at the Moore site.



**Figure 26.** Septic drainpipe exposed in N550/E480.

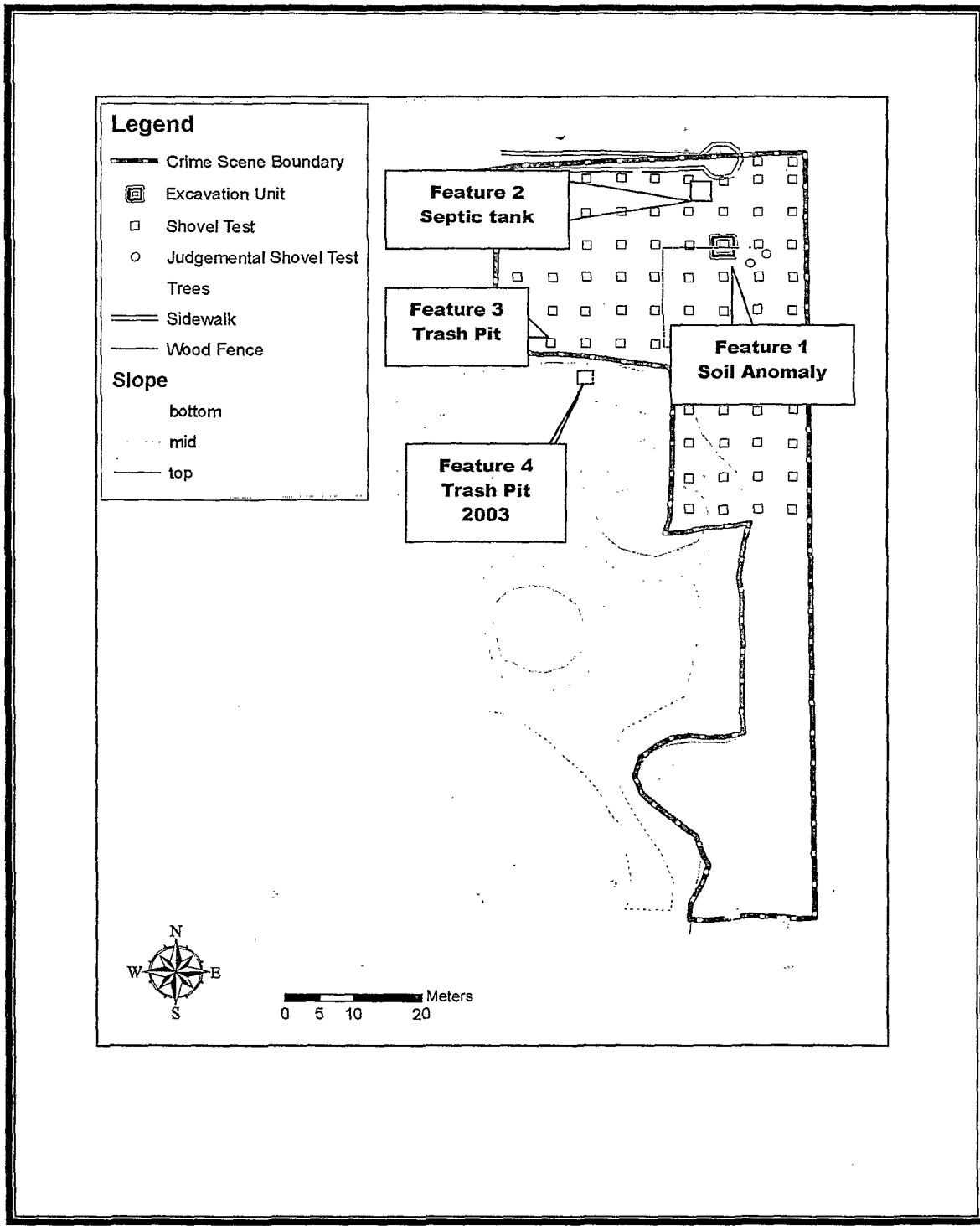


Figure 27. Features identified as a result of the Phase I archaeological survey.

to the east by the E500 line, west by the E465 line, and N454 line to the north. This is based solely on excavated shovel tests. The artifact distribution was examined and classes were established which were then charted on a series of maps. Construction debris included nails, wood, mortar, brick, window pane glass, and masonry were found to concentrate within a 600 m square area (1968 ft<sup>2</sup>) (Figure 25). The artifact distribution confirms the house site within the fenced area that exists today. There was an easement in front of the Moore house and if was used as an access road then one would expect a scattering of debris to the west and southwest away from the road. The second classification was domestic debris which included container glass, pottery sherds, toys, cut glass, etc. Again, the map illustrates the same pattern around the fenced area and moving toward the southwest (Figure 25).

Shovel testing also identified several location of high artifact density and type distribution. The shovel tests at N530/E475, N530/E495, and N535/E490 all contained high densities of building material especially brick and mortar. All three sites are within the house area. Shovel test N540/E490 produced the only soil anomaly located within the project area. The test was excavated in an area of mottled bands of orange and gray soils with some slight charcoal flecking. Subsequent testing to the east, west, and north on that date failed to find that this anomaly extended into those shovel tests. It was considered highly suspicious, designated as Feature 2, and marked for excavation for the following reasons:

1. It was the only area of disturbed soil found anywhere within the project area
2. It was located near the fence marking the house site.
3. If the fence location was correct then the anomaly would be at the approximate location of the Moore's bedroom.

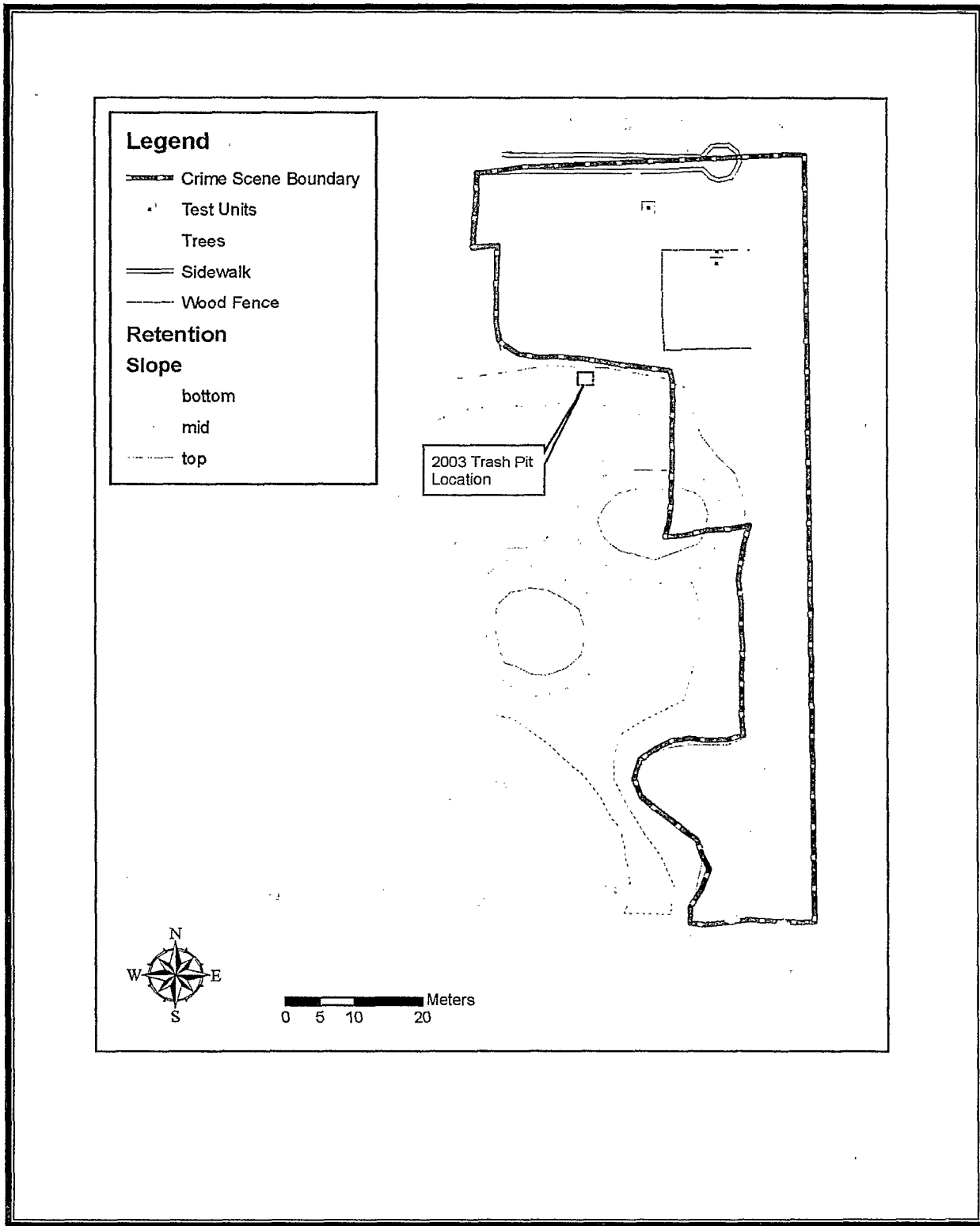
The Phase I testing also identified the location of the septic system at the Moore house. Shovel testing found a segment of a terracotta pipe N550/E480 (Figure 26). Subsequent probing of the site with a tile probe after the shovel testing was completed, lead to the excavation of a Test Unit which uncovered the hand-made septic tank (Feature 1). Probing also located the drain field which was located approximately 10 m (33 ft) north of the septic tank and present sidewalk.

Southwest of the house was a second trash pit designated Feature 3 located within St N525/E465. If the outhouse was at this location it would be a logical place to dispose of household debris including bottles, ceramics, etc, such as what was uncovered in the shovel test. Also of note was the trash pit located in 2003 (Feature 4) was located 10 m (33 ft) southeast of this location. It is the opinion of Thomas Penders & Associates that the outhouse and/or trash pit was located southwest of the house and is directly associated with the Moore's. A Phase III type excavation would be required to open this entire area for further investigation. Features identified by the Phase I testing are illustrated in Figure 27. Shovel testing forms and the Field Specimen catalog are located in Appendix D.

### **9.3 Phase II Excavation (January 2006)**

Two excavation units or test units were excavated within the project area. Test Unit N546/E479 was excavated to expose a feature identified through a combination of soil probing and previous shovel testing. The test unit N539/E489 was excavated due to a soil anomaly identified in the shovel test designated N540/E490. An additional test unit (N538/E488) was excavated to further delineate Feature 2 which was exposed in N539/E489 (Figure 28).





**Figure 28.** Excavation unit locations at the Moore site.

### 9.3.1 Test Units

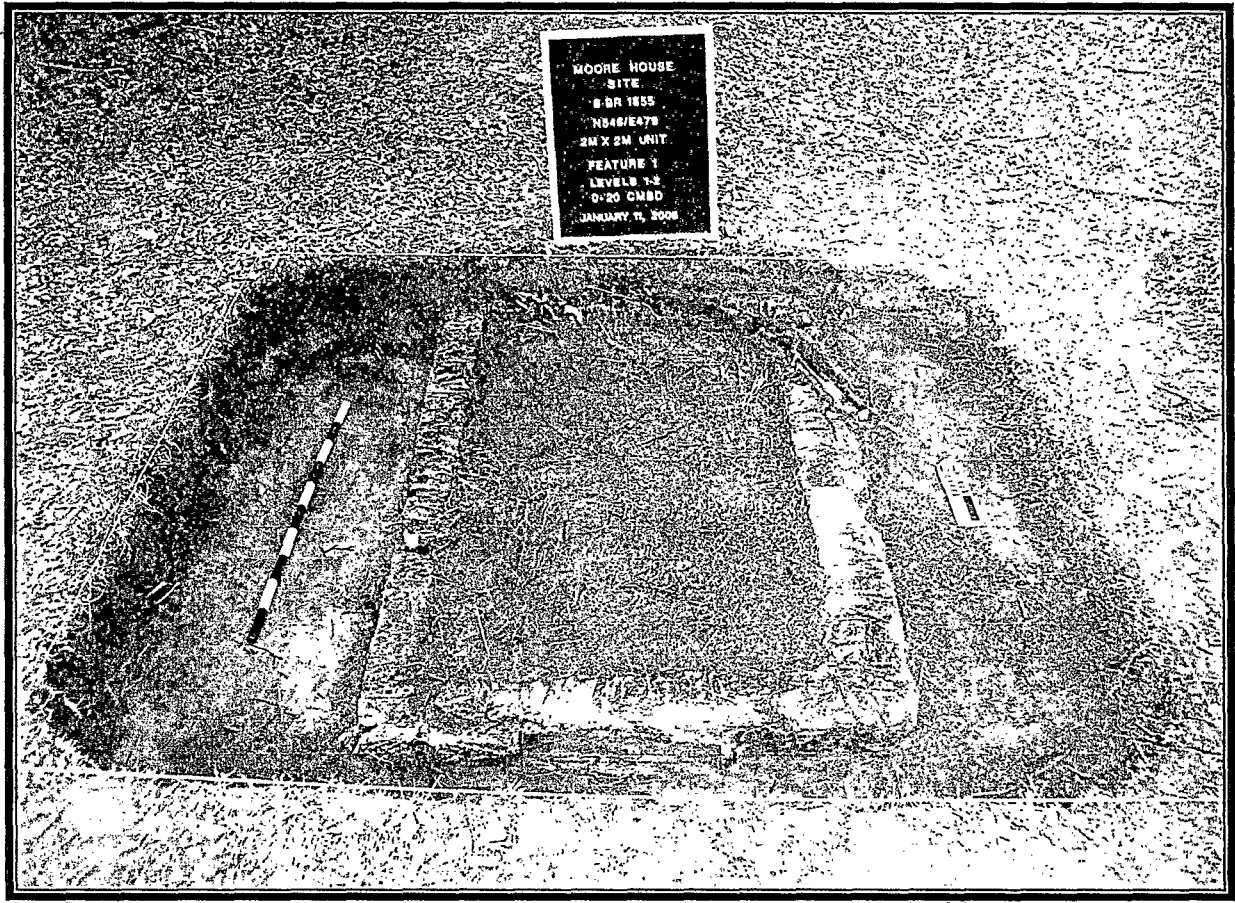
Test Unit N546/E479 was a 2 m (6 ft) square excavation unit to verify the location of the septic tank associated with the Moore house. It was located 6 m (19.7 ft) northwest of the fence marking the house site and 1 m (3.3 ft) north of shovel test N545/E480 which originally found part of the septic drain pipe in situ. The unit was excavated to a depth of 20 cm below datum/surface. Excavation revealed two stratigraphic zones. Zone A, from surface to 10 cmbd (3.9 in) was a dark gray fine sandy loam (10 YR 4/1) with numerous roots. This zone (level 1) contained container glass, one mortar fragment, and one piece of aluminum (FS 71). At approximately 5 cmbd (2.0 in) the top of Feature 1 (septic tank) was exposed. By 7 cmbd (12.7 in) the entire septic tank was exposed. Zone B which appeared by the base of Level 2 (20 cmbd) was mottled dark gray (10 YR 3/1) and an area of brown (10 YR 5/3) along the west side of Feature 1. Once the feature was fully exposed it was mapped and photographed and the unit was closed. Artifacts are listed in the Field Specimen Log located in Appendix D. Unit photographs are located in Appendix B.

Within Test Unit N539/E489, a total of 8 levels were excavated at 10 cm (3.9 in) increments. The unit was placed to further delineate Feature 2. Due to the disturbed soils, clear soil zones were not discernable in this unit. It should be noted that ST N540/E490 was previously excavated in what was the approximate center of this unit. Also within the unit was a fencepost from the fence that delineates the house site and a segment of the sprinkler system. Level 1 (0-10 cmbd or 0-3.9 in) was a uniformly very dark grayish brown soil (10 YR 3/2) except for the shovel test which was a mottled dark grayish brown, dark gray, and yellowish fine sandy loam. This level contained fragments of plastic, vinyl record fragments, container glass, window pane glass, and mortar (FS 73). Field observations place most of the artifacts in the northern half of the unit with almost all the window glass from that area of the unit. Level 2 (10-20 cmbd or 3.9-7.8 in) was uniformly very dark grayish brown soil (10 YR 3/2) except for the shovel test which was a mottled dark grayish brown, dark gray, and yellowish fine sandy loam. This level contained a very high density of artifacts with over 80-90% of the material recovered from the northern half of the unit, especially the window glass. Artifacts from this level included plastic, container glass, window pane glass, brick, masonry, charcoal, and ceramic sherds (FS 74 and 76). Within the level an unidentified glass and plastic object was found within the southwestern quadrant at N45/E85, 20 cmbd (7.9 in). It was collected and bagged separately (FS 75). By the end of Level 2, a PVC pipe from the sprinkler system was exposed oriented from west to east through the approximate center of the unit. Level 3 (20-30 cmbd or 7.9-11.8 in) became the first level that we could clearly identify the soil anomaly and it was assigned the designation Feature 2. The soil became mottled dark grayish brown (10 YR 4/2) and yellowish brown (10 YR 5/6). A darker area appeared within Feature 2 along the southern edge of the unit at 26 cmbd (10.2 in). This area was basin shaped and circular in shape. It was approximately 61 cm (2 ft) in diameter and the fencepost went through the approximate center. The color of this area was very dark gray (10 YR 4/2). There was charcoal flecking throughout the level. The PVC pipe continued to expand to include a segment along the west wall and a rubber hose that connected to a sprinkler head in the southeastern quadrant. Artifacts were found in the first 5 cm (2.0 in) of the level and limited to the northern half of the unit. Artifacts consisted of metal fragments, nails, window pane glass, and masonry (FS 77). Level 4 (30-40 cmbd or 11.8-15.7 in) was sterile of artifacts. An area of yellowish brown sand (10 YR 5/4) appears along the northern and northeastern portions of the level. The remaining area is a mottled dark grayish brown (10 YR 4/2) and yellowish brown sand (10 YR 5/4). This homogeneous yellowish brown sand defined the boundary of Feature 2. Charcoal flecking was isolated to the feature area. It was decided to collect a grab soil sample from unit floor within Feature 2 (FS 78). It was located south of the shovel test site at N40/E105 within the unit. The feature continued to shrink in size as the yellow sand expands along the south wall of the unit. By 40 cmbd (15.7 in) the dark gray soil zone was no longer visible. The column soil sample from this level was assigned FS 90. Level 5 (40-50 cmbd or 15.7-19.6 in) was sterile of artifacts the feature continued to shrink in size as the yellow sand continued to expand southward. The yellow sand area also began to appear at the southeastern corner. A soil

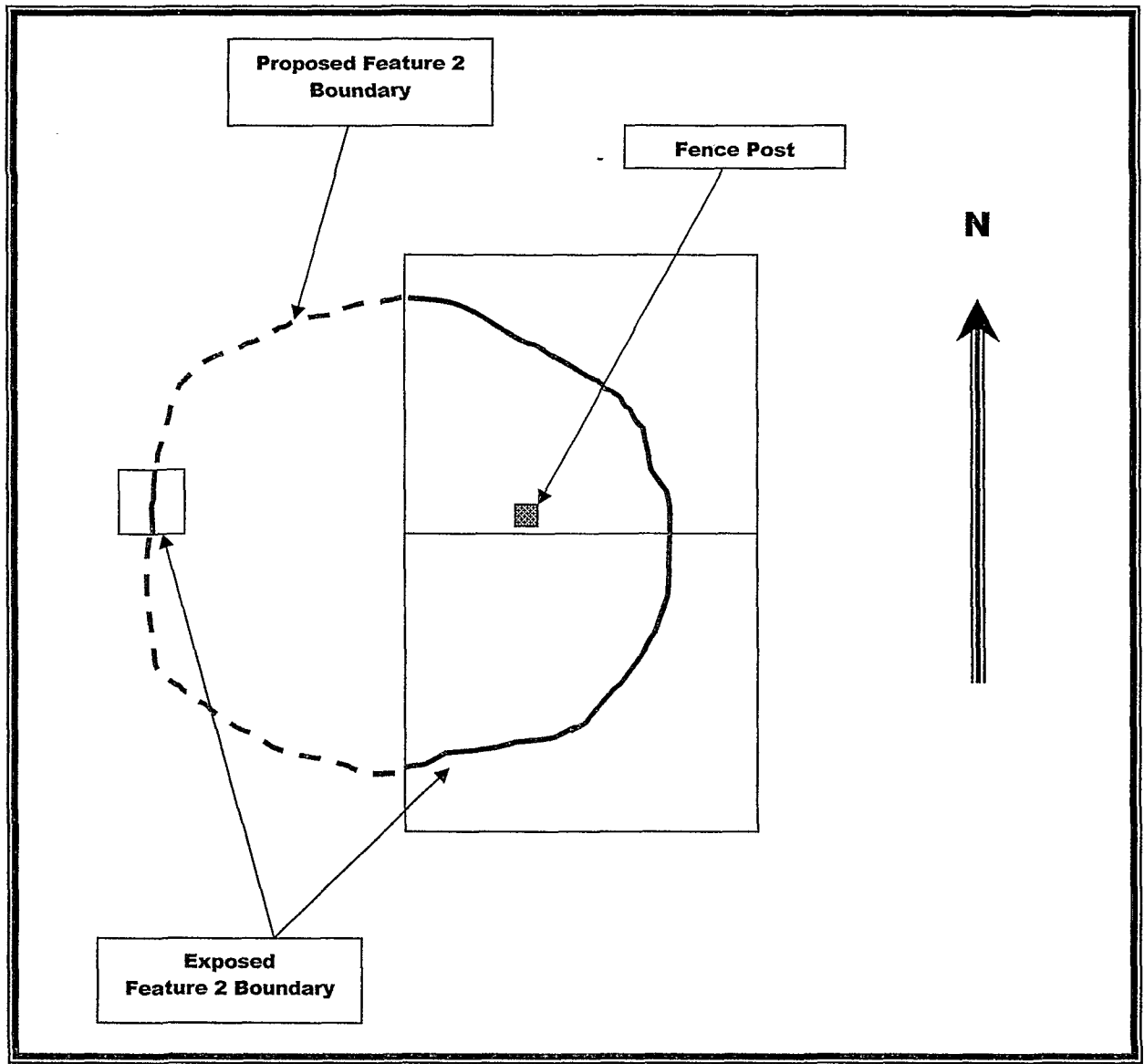
sample was collected from the southwestern quadrant of the level (FS 79). Level 6 (50-60 cmbd or 19.6-23.6 in) continued to see the feature contact in size. Yellowish sand was observed to the north, east and west. A soil sample (FS 84) was collected from just south of the shovel test location which was still visible in the level floor. By the bottom of level 7 (60-70 cmbd or 23.6-27.5 in) the feature had shrunk to a circular area in the southern half of the unit. Another soil sample was collected within the feature at the end of level 7 (FS 86). Only the south half of the unit was excavated to the base of level 8 (70-80 cmbd or 27.5-31.5 in). By 75 cmbd (29.5 in), the feature had disappeared and the unit was closed. No artifacts were found below level 3. Artifacts are listed in the Field Specimen Log located in Appendix D. Unit photographs are located in Appendix B.

In summary the unit had six levels excavated to a depth of 60 cm (23.6 in) below datum/ground surface. The cultural zone was present in the first 30 cm of the unit. By 30 cmbd (11.8 in) no cultural material was found. Field observations indicated that most of the cultural material was within the mottled soil which is Feature 2 and limited to the south half of the unit. By 70-75 cmbd (27.5-29.5 in) Feature 2 disappeared.

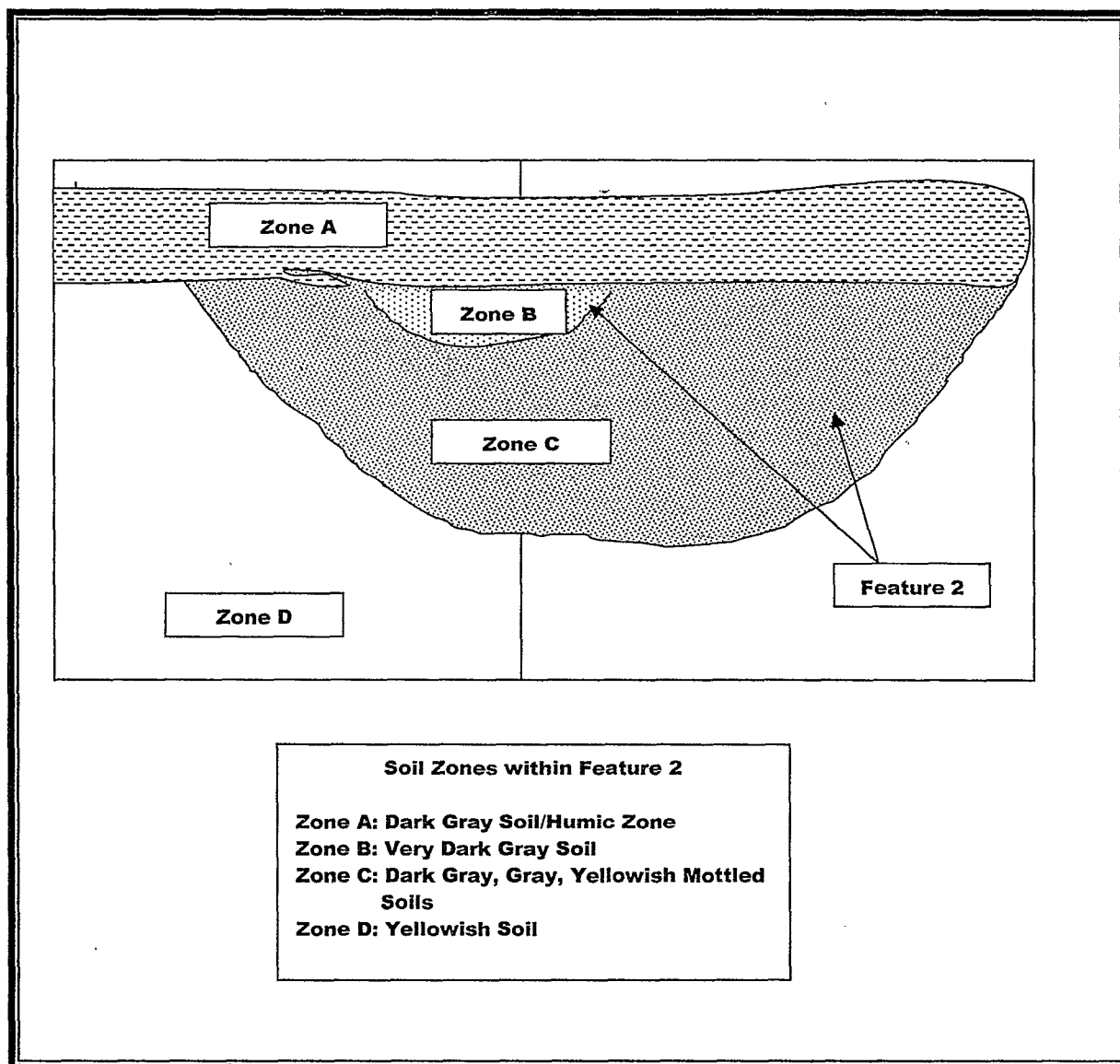
Within N537/E489 a total of six levels were excavated at 10 cm (3.9 in) increments. The unit was placed to further delineate Feature 2. It should be noted that ST N538/E489 was previously excavated in what is the approximate center of this unit. A column sample of soil was taken at each level from the northwest corner of the unit near what was considered the center of the anomaly. Samples were accessed from the unit to the north and measured 10 x 10 x 10 cm (3.9 x 3.9 x 3.9 in). Each sample was bagged separately and assigned a FS number. Level 1 was a uniformly dark grayish brown soil (10 YR 4/2) except for the shovel test which was a mottled dark grayish brown, dark gray, and yellowish fine sandy loam. This level contained fragments of plastic, vinyl record fragments, container glass, window pane glass, nails, and a blue transfer print sherd (FS 95). The soil column sample from this level was assigned FS number 87. Level 2 was predominately a mottled dark grayish brown with yellow sand mottling except the shovel test location which was described above. A zone of yellowish sand appeared at the eastern portion of the unit at 12 cmbd (4.7 in) and gradually became more apparent by the base of level 2. It extended from the west wall 40 cm (15.7 in) to the west. No artifacts were found in the yellowish sand. This level contained a very high density of artifacts with over 80-90% of the material recovered from the southern half of the unit. Artifacts from this level included a ceramic figurine fragment, plastic, container glass, window pane glass, brick, ceramic sherds (including blue transfer print and green glazed creamware), and a very thin glass shard that might be from a lightbulb (FS 96). FS 88 was the soil column sample from this level. Level 3 (20-30 cmbd or 7.9-11.8 in) showed the yellowish sand continues to migrate westward especially along the north and south walls indicating the feature is shrinking in size. A new soil anomaly appeared in this level at 26 cmbd (10.2 in) in the unit floor at the northern edge of the unit. It was composed of very dark gray (10 YR 4/2) soil. When the soil location was compared with the data from Test Unit N539/E489 it became apparent that this is part of the basin shaped anomaly that appears in the center of Feature 2. The artifact density drops significantly in this level and is still predominately within the southern half of the unit. Artifacts assigned FS 97 included a UID large mammal scapula fragment, an UID vertebrate cranial fragment, burned wood, plastic, container glass, and window pane glass. The column soil sample from this level was assigned FS 89. Level 4 (30-40 cmbd or 11.8-15.7 in) was sterile of artifacts the feature continued to shrink in size as the yellow sand expands along the south wall of the unit. By 40 cmbd (15.7 in) the dark gray soil zone was no longer visible. The column soil sample from this level was assigned FS 90. Level 5 (40-50 cmbd or 15.7-19.6 in) was sterile of artifacts the feature continued to shrink in size as the yellow sand expands along the south wall of the unit. The column soil sample from this level was assigned FS 91. Level 6 (50-60 cmbd or 19.6-23.6 in) was the final



**Figure 29.** Handmade septic tank (Feature 1) in situ within excavation unit N546/E479



**Figure 30.** Planview of Feature 2 in N539/E489, N537/E489, and N538/E488



**Figure 31.** Cross section of Feature 2

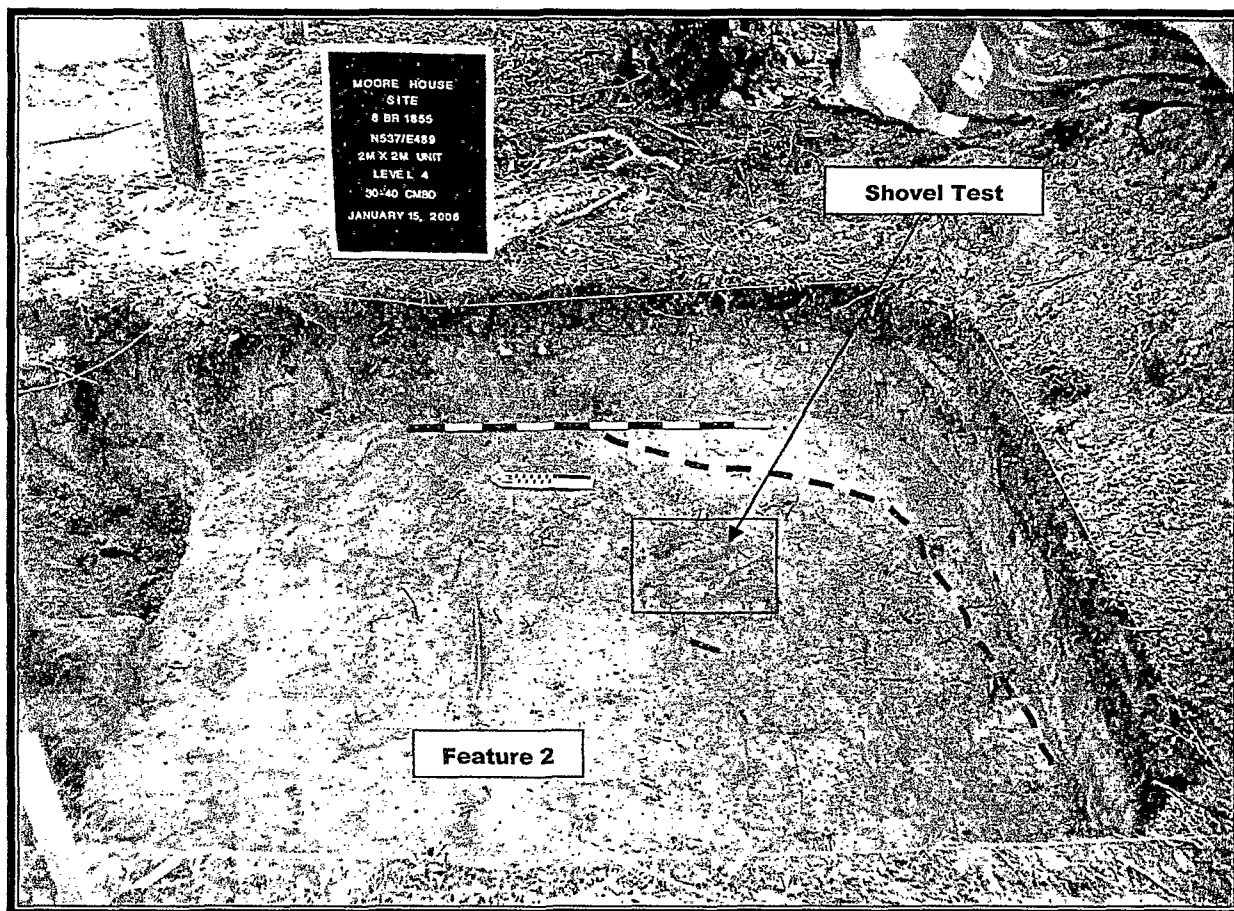


Figure 32. View to the east of Feature 2, level 4, N537/E489

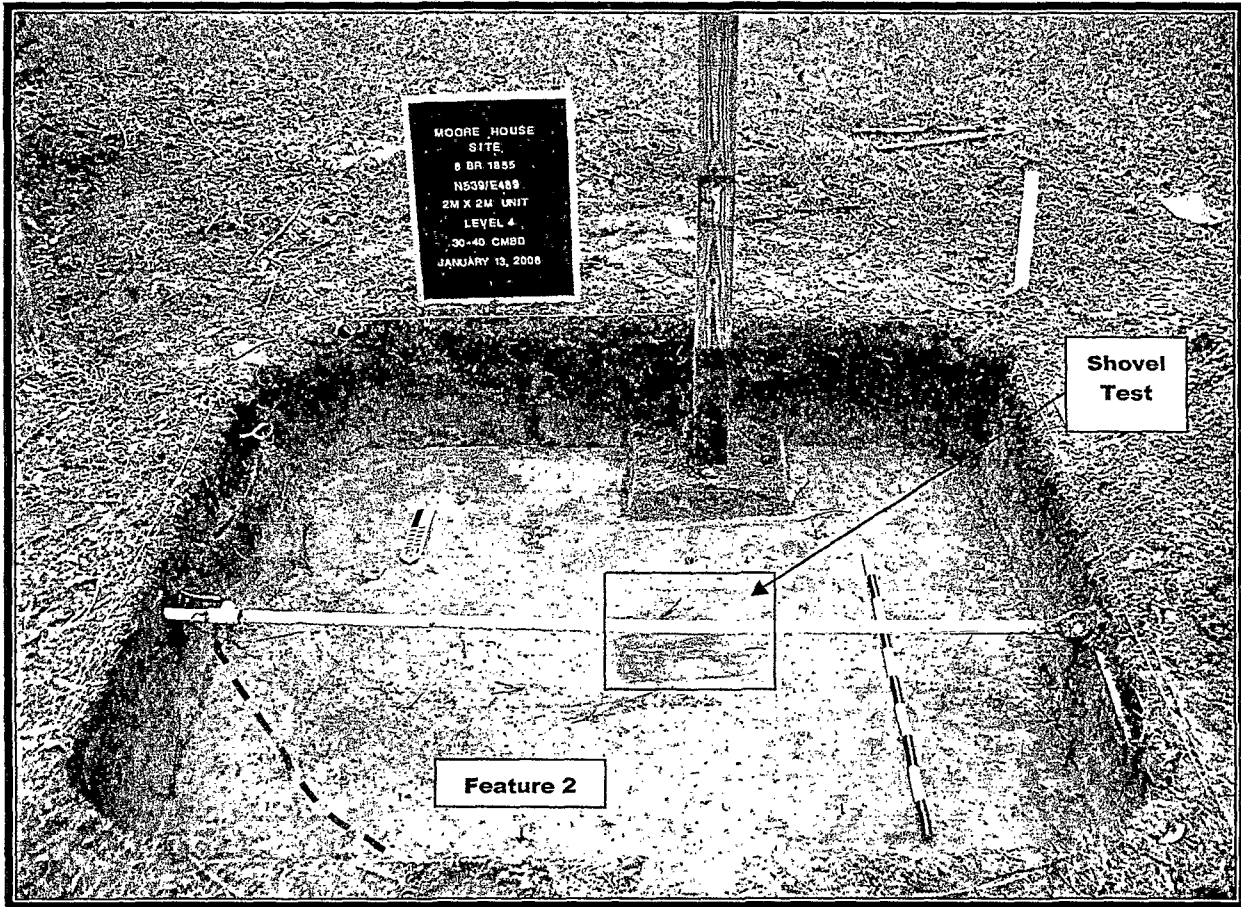


Figure 33. View to the south of Feature #2 in situ, level 4, N539/E489



level excavated in the unit. Data from the column sample and shovel test indicated that by 70-75 cmbd (27.5-29.5 in) Feature 2 was no longer present. This level was also sterile of cultural material. We know from the unit to the north artifacts are not present below level 3. Soil column samples were taken from this level plus from levels 7 and 8 (FS #92, 93 and 94).

In summary the unit had six levels excavated to a depth of 60 cm (23.6 in) below datum/ground surface. The cultural zone was present in the first 30 cm of the unit. By 30 cmbd (11.8 in) no cultural material was found. Field observations indicated that most of the cultural material was within the mottled soil which is Feature 2 and limited to the south half of the unit. By 70-75 cmbd (27.5-29.5 in) Feature 2 disappeared. Artifacts are listed in the Field Specimen Log located in Appendix D. Unit photographs are located in Appendix B.

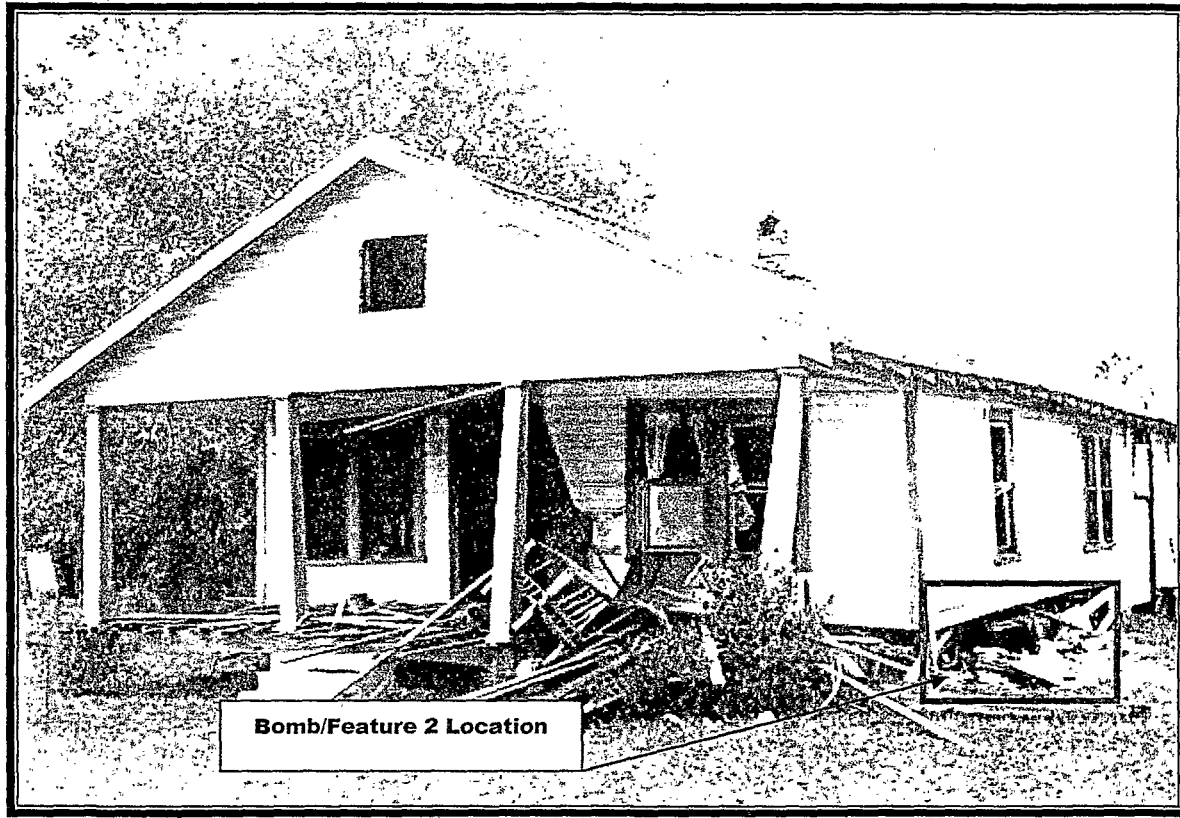
### 9.3.2 Features

Feature 1 was a septic tank was rectangular in shape which measured approximately 180 cm (5.9 ft) north to south and 120 cm (3.9 ft) east to west including the estimated northern edge of the tank. The walls of the tank were 15 cm (6 in) thick and constructed of brick covered with mortar. It appears to have been hand-made (Figure 29). Probing with a tile probe within and outside the excavation unit indicated there were clay septic drain pipes extending north and south from the tank. The southern pipe extended just south of N546/E479 where it abruptly ended. Probing for the northern pipe found that it extended under the present day sidewalk to 10 m (33 ft) north where it ended in what is believed to be the drainfield. The location of the septic tank and orientation of the pipes helps confirm the location of the house and associated features.

Feature 2 (Figures 30 through 33) is a soil anomaly which can be described as a basin shaped soil anomaly consisting of mottled soils which range in color from very dark gray, dark grayish brown, yellow, and yellowish brown. This mottling of soils is common in disturbed areas where some activity such as digging has occurred. There was a shallow basin shaped depression inside of the larger area that was exclusively dark gray soil. The top of the feature was difficult to ascertain due to the soil zone within the first 30 cm (11.8 in) was dark to very dark gray and mottling was difficult to ascertain. In addition, there were the problems of disturbances in the form of planted sod and fence posts and a sprinkler system which were installed in 2003-2004 in spite of recommendations made by this author in a previous report (Penders 2003). However, based on the feature size at 40 cmbd (15.7 in) where the mottling was most clearly visible we can say Feature 2 was 2.7 m (8.8 ft) in size from north to south and 2.4 m (7.9 ft) from east to west. If we discount the first 20 cm (7.9 in) of soil which the outline can not be seen, Feature 2 was 55 cm in depth and was basin shaped. Within the larger feature was a darker area at 26 cmbd (10.2 in). This area was basin shaped and circular in shape. It was approximately 61 cm (2 ft) in diameter and 15 cm (5.9 in) thick with the fencepost through the approximate center. The color of this area was very dark gray (10 YR 4/2). The majority of all the artifacts from the shovel tests and excavation units indicated the cultural material was found in the top 25 cm (8.2 in). In the excavation units it was observed that artifacts were found in the north half of N539/E489 and the south half of N537/E489. Most of the window glass was found within these areas. The center of Feature 2 has less artifact density and very little window glass. Discussions with county employees indicated that no large scale excavations were conducted within the excavated area. The post was excavated by hand using a posthole digger and the sprinkler system was installed excavating shallow and narrow slit trenches never excavated below 30 cmbd (11.8 in). Feature photographs are located in Appendix B and artifacts are listed in the Field Specimen Catalog located in Appendix D.

## **10.0 DISCUSSION**

The results of the archaeological survey confirmed the location of the Moore house. Artifact distribution observed in the Phase I shovel testing indicated most material concentrated around the



**Figure 34:** Location of the bomb site in 1951 and Feature 2 in 2006.

western end of the fenced area and this area in general. The location of a second trash pit (Feature 3) and the septic tank further confirmed the house was properly delineated by the wooden fence and historic marker at their present location. It is the opinion of Thomas Penders & Associates the house was demolished toward the west and that movement from the rear of the house toward an outhouse or trash pit which would account for the high amount of artifacts and metal detector hits at the west and southwestern areas behind the house. This together with the trash pits (Features 3 and 4) further support this hypothesis.

Feature 2 is the most intriguing area of the site. Of all the shovel tests excavated at the site only three contained the soil anomaly. These included the initial shovel test which identified the feature and two subsequent tests excavated during the Phase II to determine boundaries. Thomas Penders & Associates believes this could be the location of the bomb planted in 1951 which killed Mr. and Mrs Moore. By a combination of measurements which included the present fence location, photograph interpretation, and an examination of existing houses of similar style this soil anomaly would be under the front bedroom window of the Moore house (Figure 34).

Research was conducted of the archaeology of bomb craters. Most data was from World War I and II sites in Europe especially from England. Research indicated a consistent pattern. Bomb craters were basin shaped with the smallest circumference at the bottom and largest at the top. In cases where they were filled the top portion of the crater sites contain a layer of modern top soil and leveling of the ground surface. Below this the soil appears mottled and the stratigraphy displaced. In the 1995 excavations of a site in Canterbury, a World War II bomb crashed through the former Sacrist's House and cellar into the natural clay subsoil, the blast pushed the walls off their footings and blew the adjoining deposits *en bloc* up and over the footings. This was described by the project archaeologist as the 'banana skin effect'. A third crater was excavated by Dr Richard Helm, in the grounds of St Augustine's Abbey. The crater had fairly steep sides and had probably blown a medieval wall partially off its footings. The fill was a mixture of loams and demolition rubble, with *bric-a-brac* (toy lead animals, fancy mustard jar *etc.*, rather than more usual domestic refuse such as bones and broken china), steel hawsers, etc (Pratt 2002, 2006:Personal communication). At the Moore site it was observed that most artifacts were from the southern and northern margins of the feature. These areas, especially the northern area contained high amounts of window pane glass and construction debris. The southern margin contained a high amount of domestic debris mixed with construction debris. An examination of the only known photograph of the Moore site, taken after the explosion, indicated a large amount of debris outside the house site near the bedroom (Figure 34). Subsequent descriptions of bomb craters found similar patterns as the anomaly located at the Moore site (Gaffney, et. al 2004:121-128).

Though Feature 2 is thought to be the bomb location, there has over 50 years of disturbances that have more than likely destroyed any evidence. After the Christmas 1951 bombing the FBI excavated the bomb site and removed evidence. This evidence has been lost (Beisler 2005: Personal communication). It is also known that souvenir hunters visited the house and removed items including a wood fragment currently on display at the museum located at the site. The surviving Moore family members left the area. They designated family members to dispose of the property. It can be surmised that there were additional disturbances to the bomb site from this activity. Historic research has indicated the Moore house stood until sometime in 1961 when it was sold to the Mack family. It was sometime after this the house was demolished and debris probably removed from the site. If the bomb crater was still open, it was probably covered at this time when the ground surface was leveled and citrus trees planted. The property was citrus groves owned by the Mack family until 1994 when it was deeded to the Government of Brevard County. Sometime between 1994 and 2003, a historic marker and wooden fence marking the house was installed at the site. This excavation work was done by hand but disturbed the crime scene none the less. In 2003-2004, the Government of Brevard

County was constructing the current park. During this activity stormwater retention ponds were excavated, sod planted, roads and parking lots constructed, and trenching for a sprinkler system was conducted. These activities further compromised the crime scene and any evidence could have been destroyed.

## **11.0 CONCLUSIONS**

The Harry T. Moore site is associated with a local and nationally recognized civil rights activist who was killed on Christmas 1951. The crime remains unsolved. On April 11, 2003 a heavy equipment operator who was building a retention pond uncovered a refuse pit. Thomas Penders and Associates were notified and conducted a survey of the property. Thomas Penders and Associates and other visitors to the site collected 27 artifacts from the site. In December 2005 through January 2006, Thomas Penders & Associates with support from members of the Indian River Anthropological Society conducted a Phase I archaeological survey and Phase II excavation at the site. The Phase I survey included excavation of 72 shovel tests, surface survey, and metal detector survey. The results of this survey identified three features and confirmed the location of the house. Two features were subjected to additional testing during a Phase II excavation at two of these locations. Excavation found the hand-made septic tank associated with the Moore house and a soil anomaly thought to be the actual bomb site. Excavation of the bomb site failed to identify any remains of an explosive device or residues that could be related to explosives. It is the opinion of Thomas Penders & Associates that Feature 2 is the probable the location of the Christmas 1951 bomb site. However, 50 years of disturbances and soil leaching have destroyed any residuals.