

**Appendix E: First Floor, Floor Joist Plan (Prepared by Mark Nonestied, MCOAH)**

**Historic Dunham House  
Block 587, Lot 1, Woodbridge Township,  
Middlesex County, New Jersey**

**Cellar Survey**



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## **Introduction**

In partnership with the Archaeological Society of New Jersey (ASNJ), Middlesex County has engaged in several open house archaeology programs to identify, interpret and preserve historic resources. As part of that research program, museum staff coordinated a project to explore the historic Dunham House/Church Rectory and adjoining property, now part of Trinity Episcopal Church of Woodbridge. In full partnership with church officials, permission was obtained to survey and conduct analysis on interior features of the Dunham House, to conduct an archaeology and geophysical survey of the property, and to provide access of the grounds, rectory and sanctuary for a public open house that was conducted on September 28 and 29, 2019. The final report was prepared by ASNJ and titled *Archaeological Study of the Dunham House Site, Block 587, Lot 1, Woodbridge Township, Middlesex County New Jersey*.

The Dunham House, the current rectory of Trinity Episcopal Church in Woodbridge, is a Flemish Bond brick structure erected in the early 18<sup>th</sup> century and listed on the State and National Register of Historic Places. Its history is covered in both the State and National Register Nomination and the final report prepared by ASNJ. For the purposes of this recordation it should be noted that much of the interior dates from a remodeling in the nineteenth century around 1873, however the register nomination notes that “Original fieldstone foundation walls and hand-hewn, first-floor joists within the cellar are additional remnants of previous constructions.”

It is the cellar of the home that most of the interior 18<sup>th</sup> century fabric survives. In addition to the stone foundation and framing, the original chimney supports, recycled flooring and beaded molding can be found as well.

In addition, a site visit to the historic 1714 Barns-Brinton House in Pennsbury Township, Chester County Pennsylvania, an early eighteenth-century pattern brick home with similar characteristics of the Dunham House was also conducted by Middlesex County staff and Michael Gall, RPA.

## **Dunham House Cellar Description**

The Dunham House cellar is accessed by both an interior staircase on the north wall and an exterior entrance through a bulkhead door on the east wall. The cellar has a full stone foundation and dirt floor throughout with exposed framing overhead (figure 1). The overall dimensions from the east to west wall are 35 feet 5 inches and from the north to south wall 19 feet 5 inches. The height from the dirt floor to the bottom of the joists is about 5 foot 10 inches.



Figure 1: View of the cellar in the Dunham House looking towards the southeast corner. Photograph by Mark Nonestied

**Dunham House Framing.**

The framing in the cellar of the Dunham House is exposed providing full access to document and conduct further study. Middlesex County funded a dendrochronology survey conducted by Michael J. Worthington and Jane I. Seiter of the Oxford Tree-Ring Laboratory which concluded a felling date in the Spring of 1709 for one of the oak timbers.

These oak joists span the full length of the cellar from north to south, with an exception of one center joist near the north wall noted as “D” in the attached drawing. In that location there is what appears to be a period timber running east to west that cuts short the full length of the other joist. This may indicate the location of a now removed cellar staircase.

The joists are roughly 34 to 36 inches on center and are spaced on average 26 inches apart on the east side but become slightly narrower as they get to the west side of the home. The overall dimensions are roughly 11 inches tall by 8 inches wide. All joists were hand cut and were examined for any marks. There was no evidence of open mortise joints indicating recycled timbers and the only mark that was found was a “W” on a joist near the west wall, denoted as “G” on the drawing (Figure 2).

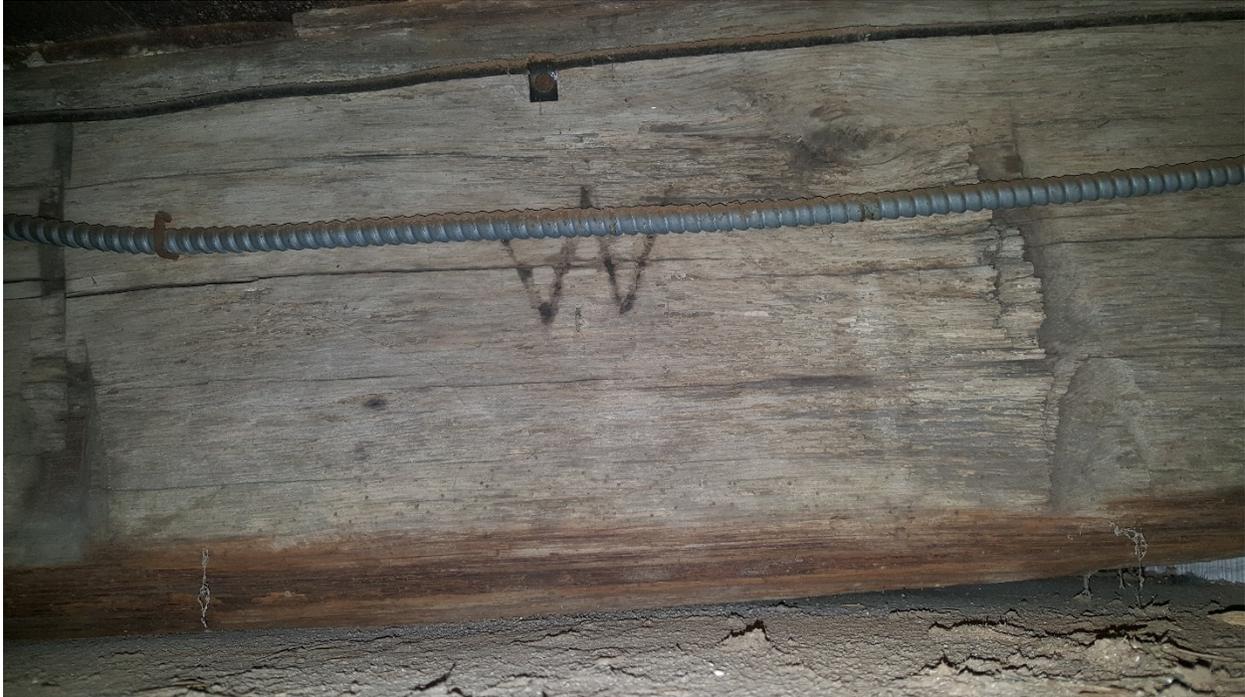


Figure 2: Oak joist with a carved “W” letter. Photograph by Mark Nonestied

### **Dunham House Cellar Additional Historic Fabric**

In addition to the oak framing, there is other evidence of 18<sup>th</sup> century historic fabric in the cellar which includes chimney supports and recycled flooring and molding.

It is clear from examining the underside of the first floor that the current wood flooring most likely dates from the 1873 remodeling. At that time, it appears that the carpenters may have used some of the earlier flooring and decorative beaded molding as supports for the tile work in the first-floor vestibule. The area underneath in the cellar was boxed in to provide a layer of mortar for the tile floor above (Figure 3). Spanning between three joists and running approximately seven feet from the center of the south wall are earlier wide plank floorboards that were recycled. The boards have reciprocating saw marks on them (Figure 4). In addition to the recycled flooring beaded molding survives here as well and was used to help box out and support the boards.

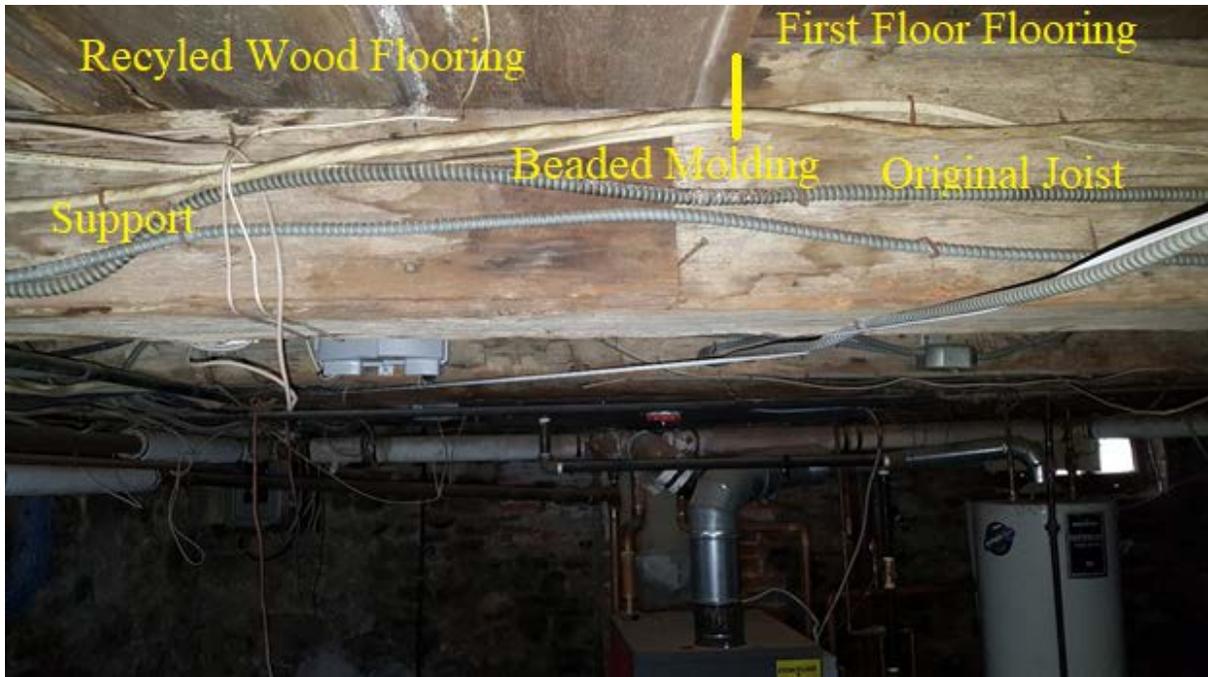


Figure 3: Carpenters recycled earlier flooring and strung them across several joists to support the tile in the vestibule. The boards were lowered and held in place with a support nailed to the original joists. The end of the box was closed in with beaded molding that was also recycled during the remodeling. The boxed in framing would have held a mortar mix for the tiles. Photograph by Mark Nonestied



Figure 4: View of the recycled flooring showing the reciprocating saw marks. Photograph by Mark Nonestied

Two half-arched brick chimney supports are also evident in the basement and are remnants of the original chimney construction. They are located along the gabled ends of the east and west wall respectively and extend from the lower courses of the stone foundation and then terminate in a half arch into the wooden joist.

Measurements were taken which indicate that the west fireplace support was slightly larger by ten inches than the east fireplace support. It is unsure whether this indicates function, namely a larger cooking fireplace. It should be noted that kitchen activities for the early period of the home need to be considered as there is no evidence in the cellar of a cooking fireplace and as of yet, there is no evidence of a cooking fireplace in the archaeology study.

### **Crawl Space**

There is a crawl space under the rear 1873 addition that can be accessed from the main cellar through a small opening in the north foundation wall. The floor joists and brick foundation work all appear to be from the 19<sup>th</sup> century remodeling (Figure 5). A lower foundation course of stone that supports the brick leaves open the possibility that this may be recycled material from an earlier building.



Figure 5: View of the crawl space under the rear addition looking east. The lower courses are all of stone. Photograph by Mark Nonestied

## **Barns-Brinton House**

The historic 1714 Barns-Brinton House is located in Pennsbury Township, Chester County Pennsylvania (Figure 6). It is an early eighteenth-century pattern brick home with similar characteristics to the Dunham House. It is in the stewardship of the Chadds Ford Historical Society which permitted an examination of the home for museum staff and Michael Gall, RPA in late 2019. Tom Snow, Education & Public Program Manager for the historical society, provided a tour and access of the site.

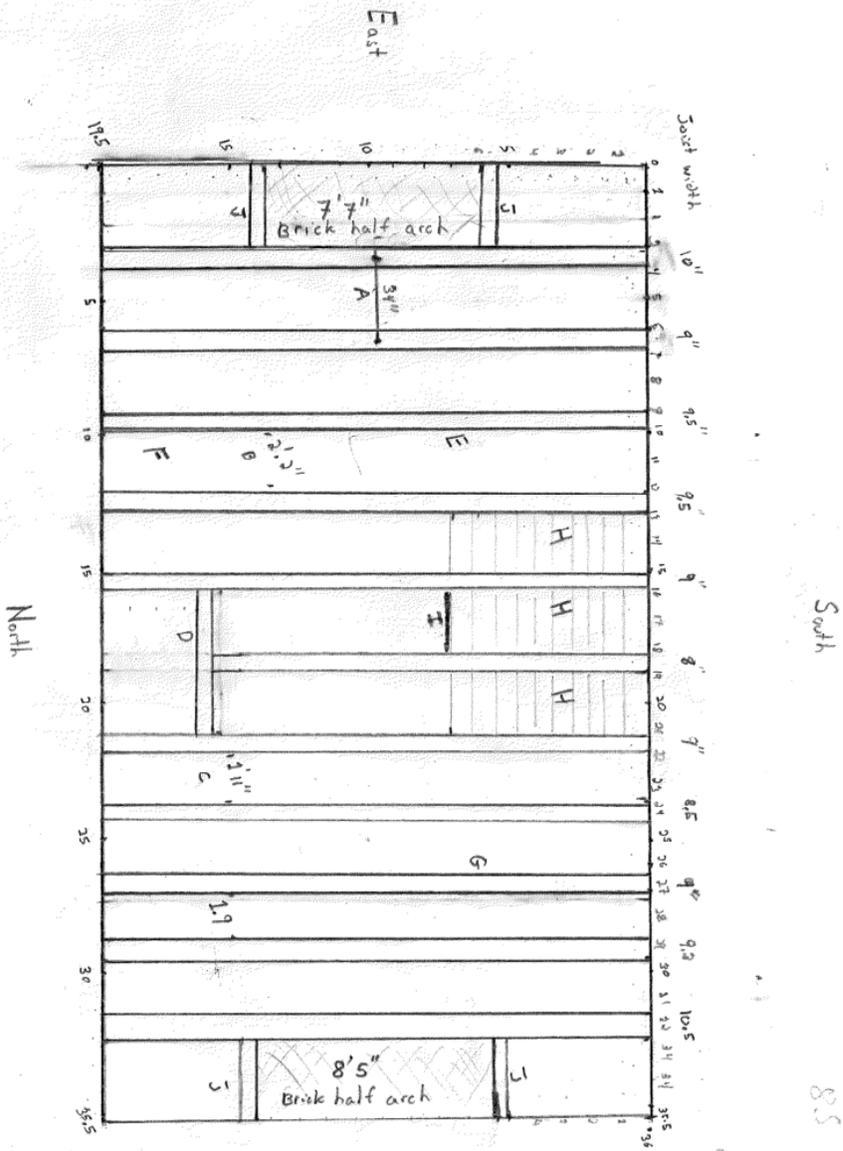
The Barns-Brinton House and the Dunham House exhibit similar characteristics as well as differences. Both are essentially a 40-foot-long by 20-foot-wide single pile, three bay structure with and a center doorway. Each are built on a stone foundation with full basement and gable end chimneys.

The joists in the cellar of the Barns-Brinton House, like the Dunham House, are of similar length as they both run the full width. In the Barns-Brinton house however they are slightly smaller in scale between 7 to 8 inches tall and 5.5 to 7 inches in width. As a result of their smaller size the spacing on center is tighter at roughly 29 to 32 inches on center.

Other differences include the chimney supports. The Dunham House has half arched supports, but the chimney support at the west end of the Barns-Brinton House is a full arch on piers. The Barns-Brinton House also has a larger fireplace footprint for the kitchen hearth; measuring 9 feet 8 inches wide and was offset from the center of the room.



Figure 6: Barns-Brinton House, Pennsbury Township, Chester County, Pennsylvania.  
Photograph by Mark Nonestied



prepared by Mark Monstedt - 2019

- A - roughly 3'4" - 3'6" on center
- B - roughly 2'3" spacing on east side
- C - slightly narrower gap on west side 1'9" - 2"
- D - 8" inch wide
- E - typical joist depth - 11"
- F - Stone foundation through out dirt floor 5'10" from floor to bottom of joist
- G - possible "W" carved on joist
- H - Recycled early floor boards to support tile in vestibule
- I - Recycled beamed molding 5 - 7" - 8" width

35.5  
19.5

## **Conclusion**

The historic Dunham House exhibits eighteenth century fabric despite its remodeling in the nineteenth century. The majority of this fabric can be found in the cellar and consists of the exposed framing, chimney supports, and stone foundation. In addition, flooring and early beaded molding were recycled from other areas of the home during the remodeling and reincorporated into the cellar. All these features provide insight into the earlier history of the home.

The opportunity for further study of the cellar is also apparent. The dirt floor leaves open the possibility for further archaeology and paint analysis of the recycled beaded molding could provide clues to early finishes.

The Dunham House in comparison with the Barns-Brinton House also provides opportunity to examine two structures of similar date, size and construction material. While some of the features share similar characteristics both homes also have their differences as well.