

## MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING (the "Memorandum") is dated as of September 1, 2014, by and among the TRUSTEES of the ASBURY UNITED METHODIST CHURCH, a Virginia unincorporated association and religious assembly (the "Church"), the CITY OF HARRISONBURG, a political subdivision of the Commonwealth of Virginia and a Virginia municipal corporation (the "City"), and the MARGARET GRATTAN WEAVER FOUNDATION, a Virginia nonstock corporation and private foundation (the "Foundation").

1. Nature of Memorandum. This Memorandum memorializes the general terms of the premises, understandings, and agreements of the parties hereto concerning the arrangements to be made for the renovation and restoration of the Thomas Harrison House (the "House"), located across from the Church on West Bruce Street in the City. This Memorandum reflects the current state of the parties' understandings and agreements. Because it is not possible to finalize every detail of the parties' agreement at present, the parties will enter into additional and supplemental agreements as the renovation process develops in order to finalize their agreements and specify the details of those agreements that this Memorandum does not address. The parties hereto each desire to see the House renovated and restored consistent with available funding and sound historical preservation practice, in order to further the understanding of the City's history and to preserve the House for future generations as a structure unique to the history of the City and the Commonwealth of Virginia. The parties agree to work together to accomplish this goal and to negotiate in good faith to determine the details of their agreement that are not specified herein. To the extent that the parties undertake specific responsibilities or make specific promises herein, the parties will be bound to complete such undertakings and perform such promises.

2. Sale of House Property. The Church agrees to sell to the City, and the City will purchase, all that certain tract or parcel of land (the "Property") on which is situate the House, containing 7,918 square feet, more or less, and which is further identified as "Tract One T.M. 26-B-1" on that certain survey (the "Survey") dated October 10, 2014, by Charles E. Wingard, L.S., attached hereto as **Exhibit A** and made part hereof. In consideration of such sale, the City will pay to the Church (a) the sum of \$565,000 and (b) shall convey to the Church a portion of City T.M. 25-J-12, which is located adjacent to the other property of the Church, behind the Virginia Quilt Museum, and north of the alley that separates the Virginia Quilt Museum from the former offices of the City School Board. The City will approve any subdivisions necessary to create the parcels necessary to accomplish these transactions. The City and the Church shall enter into a separate real estate purchase contract to memorialize the details of these transactions. The title of all property conveyed in such transactions shall be marketable, and the Church's deed to the City shall contain appropriate provisions and covenants, running with the Property, for the benefit of the Church to ensure that the House is preserved in perpetuity according to sound historical preservation practice. The parties acknowledge that portions of the Property constituting retail space are presently leased to private businesses. The Church will modify the lease with Yellow4me, LLC, so that such lease will terminate on February 28, 2015, and the City shall take the Property subject to such lease. The City specifically covenants not to do anything to disturb any tenant's quiet possession of the Property under such tenants' leases with the

Church. The Church shall indemnify the City, and shall hold the City harmless, from any loss or damage, or claim thereof, sustained by the City in account of the City's ownership of portions of the Property that the Church has leased to its tenants. The Church will modify the lease with Selfhelp Crafts of the World, Inc., d/b/a Ten Thousand Villages, to enable the City to take possession of the portion of the Property that is leased to such entity on the date hereof. The parties understand that this portion of the Property (if any) will be demolished as part of the restoration activities. In conducting such demolition, the City will use its best efforts not to disturb such tenant's possession of the remaining portion of its leasehold, and will provide appropriate notice to such tenant of its demolition activities such that the business of such tenant will be disrupted in as minimal a manner as possible.

3. Residue of Property. The parties acknowledge that the Church will continue to own the residue of the Property (the "Residue") shown on the survey. The Church will terminate the lease of the tenant occupying the southernmost unit of such Property in order to enable the Harrisonburg-Rockingham Historical Society (the "Society") to relocate its offices there under a separate lease to be negotiated between the Society and the Church. The Church will not lease such unit to another party until the Society has declined to lease such unit on commercially reasonable terms. The Church anticipates retaining the current tenant of the northernmost unit of the Residue. The Church will grant the City a right of first refusal to match any offers to from an unrelated third party to purchase the Residue in an arms-length transaction for fair-market value consideration. The Church and the City will memorialize the terms of such right of first refusal in a separate document, which any party may record in the land records of Rockingham County.

4. Renovation of House. After the closing on the conveyances described in paragraph 2 herein, the City and the Foundation will proceed with the renovation and restoration of the House in accordance with the findings and recommendations of the document dated January 27, 2012, and entitled "Thomas Harrison House Architectural Survey & Assessment Report of Findings", (the "Report") attached hereto as **Exhibit B** and made part hereof. Such renovation will be supervised by a steering committee (the "Committee") consisting of one representative from each of the parties to this Memorandum. The Committee will cause additional architectural studies to be made to determine exact recommendations for work to be done as part of the renovations, and shall develop a comprehensive implementation plan and timeline for the renovation. The Foundation and City will each contribute the sum of \$500,000 to such renovation activities. The City's contribution will be in addition to the consideration provided to the Church for the conveyance of the Property as described in paragraph 2 and may be made over one or more fiscal years. The expenses for the renovation shall be invoiced to the Foundation or the City directly, as the parties may agree in separate agreements with the contractors undertaking the renovation, with the understanding that demolition costs involved in the renovation shall be invoiced to the City, not the Foundation, and neither the Church nor the Foundation will be responsible for any demolition costs. Provided, however, that if the costs of demolition exceed \$35,000, any costs above \$35,000 may be accounted for as part of the City's contribution to renovation activities. The parties understand that the amounts contributed may not be sufficient to complete each aspect of the renovation described in the Report. The Committee shall advise the City as to which aspects of the renovation to complete if insufficient funds are available to complete the entire renovation, with the understanding that the work described in the section of the Report entitled "Basement – Spring and Flood Mitigation" shall

be given priority. The City will use its best efforts to apply for and obtain grants to provide additional funds for restoration activities. The parties hereto agree that following the expenditure of the initial contributions of the City and Foundation, all decisions regarding the restoration shall be made by the City subject to available funds and good restorative practices.

5. Post-Renovation Activities. As owner of the House, the City will be responsible for ongoing capital maintenance of the House in good condition and repair. The parties anticipate that after completion of the renovations on the House, the House will be used as a public museum of Harrisonburg history. Such museum will include a display detailing the history of the House's use in connection with the Methodist church. The City shall maintain, in its present location, the plaque presently at the House memorializing the accomplishments of Francis Asbury at the House. The parties anticipate that the Society or the City will provide staffing for the museum at a reasonable level and may share staff with the Hardesty-Higgins House.

6. Miscellaneous.

(a) The parties will keep the terms of this Memorandum confidential to the fullest extent possible until they agree to make a joint public announcement or all or parts of its terms. Until such time, the City will resist disclosure of the document to the fullest extent that the City Attorney determines is permissible under the Virginia Freedom of Information Act or other applicable law.

(b) Each party warrants to the others that it has full corporate power and authority to enter into the transactions proposed herein. The conveyance of the real estate contemplated herein is subject to the approvals required, in the case of the Church, under the Book of Discipline of the United Methodist Church and the Circuit Court of Rockingham County, Virginia. The Trustees of the Church undertake to use their best efforts to obtain such approvals, and believe that it will be possible to do so. The parties acknowledge that Virginia law requires the City to hold a public hearing and obtain City Council approval before conveying real estate to the Church as contemplated herein. The City states its good-faith expectation, as of the date hereof, that it will provide such approval.

(c) No party to this Memorandum may assign its rights or obligations hereof without the approval of the other parties hereto.

(d) The parties state that they are not partners or joint venturers.

TRUSTEES of the ASBURY UNITED METHODIST CHURCH, a Virginia unincorporated association and religious assembly

By: William F. Noss

Its: Trustee Chairman

CITY OF HARRISONBURG, a political subdivision of the Commonwealth of Virginia and a municipal corporation

By: P. D. Hodge

Its: City Manager


MARGARET GRATTAN WEAVER FOUNDATION, a Virginia nonstock corporation and private foundation

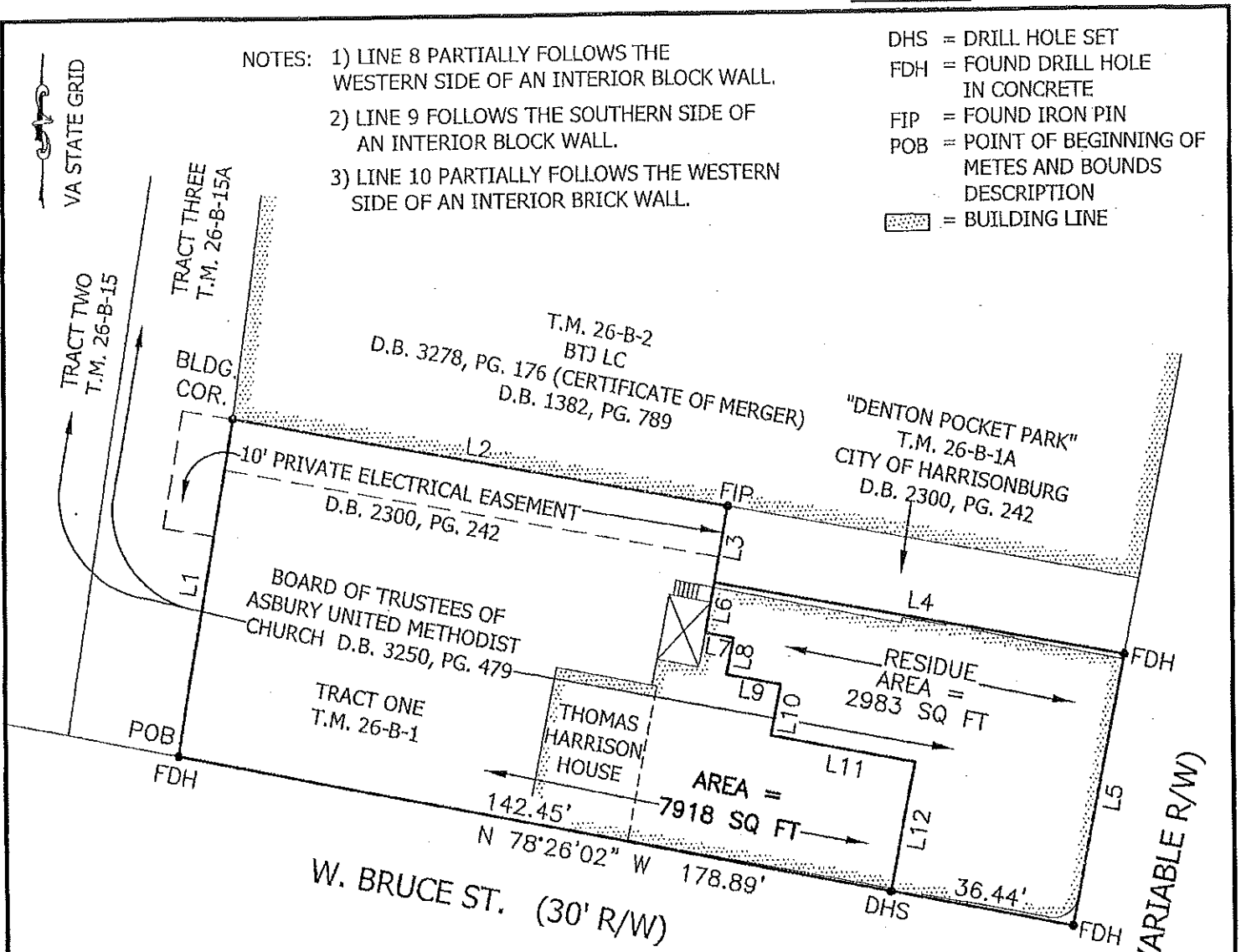
By: Donald E. Blount

Its: President

**EXHIBIT A**

- NOTES: 1) LINE 8 PARTIALLY FOLLOWS THE WESTERN SIDE OF AN INTERIOR BLOCK WALL.  
 2) LINE 9 FOLLOWS THE SOUTHERN SIDE OF AN INTERIOR BLOCK WALL.  
 3) LINE 10 PARTIALLY FOLLOWS THE WESTERN SIDE OF AN INTERIOR BRICK WALL.

- DHS = DRILL HOLE SET  
 FDH = FOUND DRILL HOLE IN CONCRETE  
 FIP = FOUND IRON PIN  
 POB = POINT OF BEGINNING OF METES AND BOUNDS DESCRIPTION  
 = BUILDING LINE



LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	N 09°35'17" E	66.10'	L6	S 10°47'38" W	9.87'
L2	S 79°17'38" E	98.99'	L7	S 78°38'48" E	5.70'
L3	S 10°42'22" W	15.00'	L8	S 11°21'12" W	7.24'
L4	S 79°17'38" E	81.72'	L9	S 78°38'48" E	10.77'
L5	S 11°17'20" W	53.77'	L10	S 11°21'12" W	10.08'
			L11	S 78°38'48" E	28.76'
			L12	S 11°21'12" W	25.52'


S. MAIN ST. (VARIABLE R/W)



PLAT SHOWING A MINOR SUBDIVISION OF THE LAND OF THE BOARD OF TRUSTEES OF ASBURY UNITED METHODIST CHURCH (T.M. 26-B-1)

CITY OF HARRISONBURG, VA

SCALE: 1" = 30'  
 DRAWN BY: JRS  
 DATE: OCT 10 2014  
 SHEET: 26, BLOCK: B, LOT: 1  
 DIVISION OF ENGINEERING  
 CITY OF HARRISONBURG  
 409 SOUTH MAIN STREET  
 HARRISONBURG, VA 22801

THOMAS HARRISON HOUSE  
 PROJECT # 1403  


Thomas Harrison House  
Architectural Survey & Assessment  
Report of Findings

January 27, 2012

Randy Buie  
Shenandoah Historic Restoration Alliance

## What was Requested

During the second half of 2011 the necessary funding was put in place to provide for the architectural assessment of the Thomas Harrison House to determine the extent to which the original historic fabric of the property remained in place. Essential to this assessment was the removal of the modern overlaying construction found throughout the property so that the historic underlying material could be exposed for inspection and evaluation. This modern material dated to renovations made in 1967 and 1989 and consisted of drywall, wood framing, plaster, electrical service, fiberglass insulation and other miscellaneous materials.

In addition to inspecting the historic fabric of the property, it was also necessary to evaluate the circumstances behind the seasonally persistent flooding in the basement, which at times was observed to reach a depth of three or more feet. While it was obvious that the flooding was associated with the basement spring system, the specific cause needed to be identified as a means to proposing a solution.

Closely associated with the assessment of both the house and the spring is the scope development for archaeological excavations in the basement and surrounding property, as well as the assessment of artifacts and organic material found within the historic construction materials and crevices of the house. While the archaeological activities will be pursued separately from those composing the work for this report, both elements remain intertwined and some archaeological discoveries and considerations will be included in this survey.

## What was Done

With the exception of some of the modern flooring, the masonry for one fireplace and the climate control system, all of the modern construction material was removed from the interior spaces of the house. The modern elements left in place were retained as a means of protecting the surrounding historic elements until such time as a full restoration may be pursued. No modern exterior construction, consisting primarily of the roof, eaves and dormers, was removed during this assessment.

Upon removal of the modern material, the exposed original and later historic material was inspected and evaluated for both its condition and clues to the original character of the building. Numerous historic alterations were identified that occurred during the period between the late 18<sup>th</sup> and early 20<sup>th</sup> century. These alterations were evaluated to identify both their particular historic qualities and to assess their effects on the fabric of the property either through the modification or removal of original architectural elements within the house.

In addition to the architectural assessment of the property, artifacts representing the material culture of those who lived in the home were identified and collected for future examination. The items collected include bone and brass buttons, a bottle and bottle fragment, animal bones, coal fragments, document fragments and what is likely a Civil War era tin lid from a Union ration can. As these items were found in crevices throughout the property, they demonstrate the attention that should be given to the careful examination of the property prior to and during the restoration process.

## **What was Found**

### **Roof and Attic**

As a means of identifying elements of the original construction of the roof, the modern fiberglass insulation was removed from the attic and from behind the knee walls on the north and south side of the second floor. Once removed, large quantities of roof debris representing at least six roofing episodes was identified. These episodes were:

1967 to present.....	Composition; asphalt shingles
c.1936 to 1967.....	Standing seam metal roof
c.1880's to c.1936.....	Slate
c.1840's to c.1880's.....	Circle sawed, square-butt, pine wood shingles
c.1790's to c.1840's.....	Rived ,square-butt, pine wood shingles
c.1750 to c.1790's.....	Rived, round-butt, pine wood shingles

The roofs from the 1880's to the present are dated based on observations from available photographs. The earlier wood shingle roofs are more generally dated based on the means of manufacture (rived or sawed) and the presence of nails from the respective periods that remain lodged in many of the shingle fragments.

Interestingly, the original roof appears to have been composed of round-butt shingles. This style of shingle is more closely associated with construction practices of the English Tidewater and Piedmont regions rather than that of the Pennsylvania German construction practices more commonly represented in the Valley. The certainty of the round-butt style is supported by the discovery of an intact, unused shingle found behind the north knee wall. The dimensions of this shingle match those commonly used east of the Blue Ridge during the 18<sup>th</sup> century.

The evidence also clearly shows that the dormers are not original to the property. At the time the dormers were added the obstructing roof rafters on each side of the roof were cut in half and the interior plaster and plaster lathing was cut open to fit the height and width of the dormer opening. Based on the oldest available photograph, the dormers were added prior to c.1880.

### **Interior Staircase**

Upon removal of the modern construction, it was discovered that there was originally an "L" staircase located in the southwest corner of the south room that provided access between the main floor and the second floor. Very little of the original construction of the staircase remains. Most of the identifiable characteristics are represented by "shadow" lines remaining in the plaster walls and floors that indicate the staircase profile. This would also include the newel post, handrail and spindle mortises remaining in place adjacent to the staircase opening on the second floor.



The single remaining framing element found was a riser that had been removed and "sistered" on to the second story floor joist to support the floor repairs enclosing the opening to the upper room. This piece is significant because it provides the dimensions for the rise and run (approximately 11" of rise for a 9" run) of the staircase treads. With the information from the riser, shadow lines remaining on the floor and in the plaster and a knowledge of the construction practices for the period, it is reasonable that the staircase may be reproduced with accuracy.

## **Floors**

While most of the historic plank flooring remains covered with modern flooring, a sufficient amount of the historic floor has been exposed to determine that the original floor remains in place. The two rooms on the main floor and the single room on the second floor have each experienced repairs and alterations.

The south room on the main floor, which likely served as the parlor where guests were received, has had the most extensive alterations made to the floors. Not including the modern flooring, three layers of flooring are present. These consist of the original plank floor (c.1750) that has been face nailed with forged nails; a wide plank floor (c.1830 to c.1850) face nailed with cut nails; and a uniformly narrow (3 1/2") plank floor (early 1900's) tongue nailed with wire nails. As viewed from the basement below, there have been a number of repairs made to the original floor, so its overall condition can not be confirmed until the overlaying floor is entirely removed.

The historic flooring in north room on the main floor is represented by two layers consisting of the original floor and a second wide plank floor. This second wide plank floor has not been sufficiently exposed to determine its age, but it appears to have been laid at a separate time from the wide plank flooring in the south room. Based on the dimensions of the planks, it likely dates to a period prior to 1860. The condition of the original floor can not be fully assessed until the overlaying floors are removed, but as viewed from the basement below there appears to have been a fire in the middle of floor at some early date. Damage and charring to two of the floor joists and the replacement of a section of original floor planks would indicate that a fire had ignited in the center of the room. More may be learned about this event as the overlaying floors are removed.

The historic flooring on the second floor consists solely of the original floor. Aside from the modern floor, no modifications were made in this room, although there are indications that a number of planks have been repaired or replaced. More can be learned about its condition once the overlaying modern floor is removed.

## **Second Floor Dividing Wall**

Historic descriptions of the second floor state the room was divided into two rooms as early as 1816. The possible evidence found on the ceiling plaster has proven inconclusive during the paint analysis. No other evidence for this wall has been identified, but it is still possible that an outline of the wall and wear marks may be found on the floor once the modern floor is removed.

## **First Floor Dividing Wall**

The dividing wall between the north and south rooms on the main floor does not appear to be original. Several factors are evident in the construction that are inconsistent with original construction characteristics. These factors include:

- Lathing nails are characteristic of those made generally between 1815 to 1830.
- Wall framing is not constructed to match with mortises in the flooring, but is toe nailed into the floor.
- The wall has likely been plastered on three separate occasions. The oldest plaster debris in the wall cavity is not consistent with the original plaster found elsewhere in the property.
- The original plaster on the east wall is continuous behind and has been overlapped by the dividing wall.
- An original, painted length of door trim on the front entry is embedded behind the framing of the dividing wall.

Standard construction practices for the period of the property would have provided for a wide, vertical wood plank dividing wall rather than a framed and plastered wall. Based on the age of the plaster wall, it is likely that the plank wall was replaced in the early 19<sup>th</sup> century. It is also possible that the doorway in the plank wall between the north and south rooms was located closer to the front (east) end of the room rather than at its current center location. This can be more closely examined once the overlaying floor is removed and wear marks on the original floor are exposed for inspection.

## **Basement Dividing Wall**

It appears possible that there was originally a dividing wall in the basement that separated the fireplace and food preparation area from the spring. This wall would have run east to west on the south side of the summer beam. Evidence for a dividing wall is found on the ceiling joists in the form of nail holes and an unpainted band of wood running perpendicularly across the joists. This evidence is not conclusive, in and of itself, that there was a wall extending to the floor. However, this provides a point of interest to be considered during any archaeological excavations that are conducted in the future.

## **Fireplaces and Hearths**

Of the four fireplaces in the property, the basement and second floor fireplaces are the least altered and largely maintain their character, which includes the remnants of an arched opening over the second floor firebox. The fireplace in the north room of the main floor has been damaged, but its general construction can be determined. The fireplace in the south room of the main floor has been completely removed and replaced with modern construction and will need to be reconstructed using the other examples on the property as models. All of the hearths appear to have been removed and framed in to support the modern floor. This can be more closely examined once the modern floor has been removed and the space becomes exposed for inspection.

The available evidence also indicates that none of the three fireplaces on the main and second floors were originally framed by a mantle. The surrounding stonework is coated with a white lime wash on those surfaces that would be concealed behind the mantles indicating the mantles were added at a later date. However, it is likely that a simple shelf mantle would have been used over each fireplace, which is more characteristic of the 18<sup>th</sup> century home. This can be more closely examined as the surrounding damaged plaster is removed and repaired during the general restoration of the property.

## Plaster

Much of the original plaster on the interior stone walls remains in place and varies in condition from very good to poor or missing. Most of the missing plaster can be attributed to damage incurred when the property was remodeled in 1967 and 1989. However, the benefit of this damage is that large areas of the original plaster have been exposed to reveal the organic material used as binders within the plaster mixture. This organic material consists of leaves, grass, weeds and stems, as well as seeds of many of the associated plants species. Once the plant species are identified, this evidence becomes significant because it provides a basis for a number of larger cultural and archaeological questions to be answered to include:

- The time of year the property was built based on the maturity of the plants and seeds.
- Plant species and ecology surrounding the property at the time the house was built.
- Possibly identifying cultivated species specific to the Harrison plantation.
- Obtaining historic genetic material for native and cultivated plant species.
- Viability studies on the seeds for possible cultivation, research and inclusion in the Harrison garden using plantings derived directly from the historic seeds.

The plaster on the ceiling and dividing wall of the main floor rooms is not original. Based on its composition and the evidence associated with the early electric service in the rooms, this plaster dates to c.1900-1910. The ceilings were originally plastered, as the lathing and forged lathing nails date to the 18<sup>th</sup> century and there is no evidence on the ceiling joists or elsewhere around the perimeter of the ceiling to indicate that the ceiling joists were ever exposed.

The original plaster on the second floor is confined to the gable stone walls. Based on the lathing nails, the ceiling was likely plastered between 1815 and 1840. There is no indication that the ceiling was originally left exposed to the rafters prior to the addition of the plaster. It is possible, as is evidenced in other stone houses contemporary to the period, that the ceiling was originally covered with tongue and groove planking. The original enclosure for the knee walls was wide tongue and groove planking, which remains in place behind the plaster. This planking shows signs of having been abutted by other construction on its upper edge, which would account for the planking being continuous across the ceiling. However, unless some of the existing historic ceiling plaster is removed for further inspection this question remains open.

## **Woodwork – Doors and Trim**

Most of the original woodwork throughout the property has been previously removed. The only remaining element is a limited amount of the base trim on the second floor. A few fragments of trim from the first floor were incorporated in to the modern construction as spacers and nailers, while some small pieces of detailed trim were thoughtfully placed within the hollow spaces of the walls at the time of the modern renovations. However, the location of their original use still remains unknown.

The missing elements include window and door trim, chair rail, baseboard and the main entry and dividing wall doors. While the dimensions and locations of these elements may be identified by their outlines remaining in the surrounding plaster and stonework, their specific profiles are as yet unidentified. Some additional trim was cut into spacers and incorporated in the modern structural support in the basement, but this remains inaccessible until such time as these structural elements are removed and replaced. Unless additional examples are located or paint profiles exist on the remaining concealed trim, it is likely that it will be necessary to reproduce the doors and trim work based on profiles obtained from other properties of similar contemporary construction.

Two doorways on the property are not original. The second door on the main floor was originally a window. The conversion took place during renovations in 1967. The door on the second floor gable was also originally a window, but was converted to a doorway in the early 1800's, probably at the time the property was joined with the Hall House during or after its construction in 1826. The spikes (large cut nails) used to set the door frame are the same as those used to sister the stair riser to the first floor ceiling joist when the stairway opening was enclosed. It is likely that the two changes occurred simultaneously. When access to the second floor became available from the adjoining construction, the interior "L" staircase was removed and covered over creating more living space in the south room of the Harrison House.

## **Finishes – Lime Washes**

Two dozen plaster and wood samples were analyzed to determine the original finishes on the plaster and woodwork of the main and second floors. Based on that analysis it was determined that the plaster was not originally coated with a finish, but was left unfinished until such time as it became dirty with use and exposure to soot from the fireplaces. After perhaps a year or several years the first coat of white lime wash was applied followed by additional coats over the ensuing years. It was not uncommon to leave the white (top) coat of plaster unfinished as it had its own clean, white finish when newly applied.

The analysis also indicates that the woodwork was originally left unfinished. The few wood samples available show some accumulations of dirt beneath the first layer of finish, which would indicate that the surface was exposed for a sufficiently long period of time for accumulation to occur prior to a milk wash being applied. This would also be supported by the absence of any over painting or stray drips where the plank dividing wall would have made contact with the floor or stonework. Once the overlaying flooring is removed, the original floor can be more closely examined for a more complete determination.

Several coats of lime wash have also been applied to the exterior stone walls. While the samples were degraded because of exposure, the analysis concludes that these finishes are not original to the property and were applied at later dates.

### **Basement – Spring and Flood Mitigation**

It has been observed that the basement spring experiences a significant reduction in flow during the summer dry season. During this past July daily observations were made to evaluate both the spring flow and the nature of the almost daily flooding that was occurring. It was previously thought that the spring discharged into Black's Run, but research concluded that the spring discharges through a lateral line tied in with the city sanitary sewer main located under Bruce Street. As a result, when the spring's rate of flow is reduced below a certain threshold the reduced discharge allows for the backflow of raw waste water from the sewer main to travel up the lateral line directly into the basement of the house. Records would indicate that this connection has been in place since at least the 1950's.

As a means to address this condition design efforts were initiated to develop a water management system to disconnect the lateral from the sewer main, redirect the spring flow into Black's Run and provide a flood management system to prevent water infiltration into the basement from Black's Run during periods of heavy rainfall when the stream rises. As the difference in elevation from the spring to Black's Run is only 12"-15" it would not take a significant rise in the stream's water level to create a backup of water in the basement through the connecting discharge line. It is also necessary to manage the outflow of water from the spring, which also increases with rainfall. This creates two sources of water that must be suitably directed and controlled.

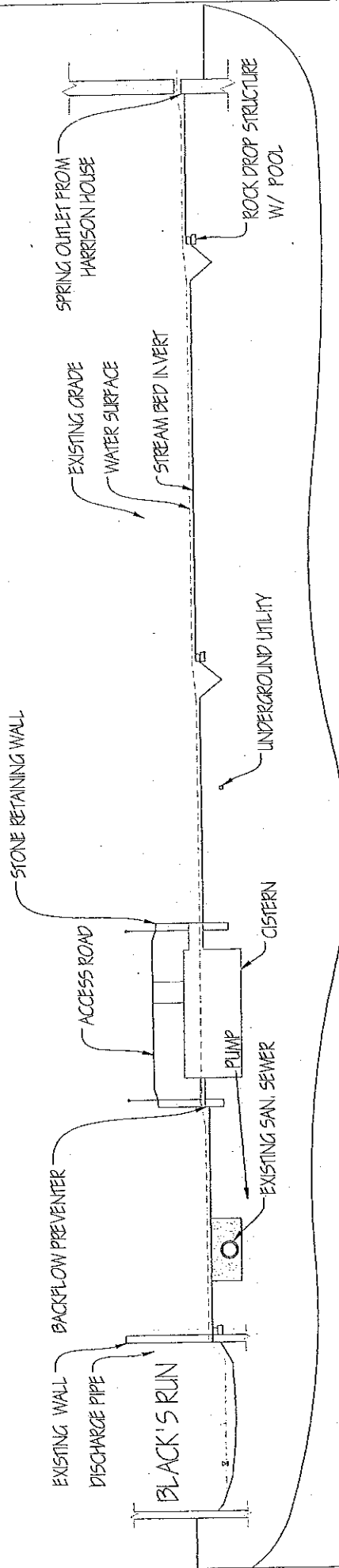
Another consideration is that when a spring management system is installed it needs to be compatible with the larger garden design. The garden has been developed to build off of the proposed archaeological excavations that will open the space surrounding the house to a point at or below the original land grade, which ranges from four to six feet below the current grade. The garden also creates a living environment in which to cultivate the historic ecology represented by the organic material encapsulated in the plaster original to the house.

The attached design provides an overview of the water management system and the larger garden concept. Because of the nature of the sewage backup and the need to sanitize the basement prior to any work beginning in that space, it is currently proposed that the water management system will need to be installed before the larger archaeological excavations could begin, so this is intended to serve as a general concept design until a number of the outstanding archaeological issues are identified and resolved and the design is reviewed by the steering committee for any possible changes.

**Restoration Narrative:**

The historic restoration of the Harrison House includes the daylighting of a spring fed channel which originates in the cellar of the historic structure. The spring channel currently discharges through the foundation wall to a pipe which drains to the sanitary sewer system. This condition results in the regular reversal of flow from the sanitary sewer which subsequently discharges sewage and stormwater into the cellar of the Harrison House. The proposed restoration plan would disconnect the spring flow from the sanitary sewer and return the flow to an open channel that would discharge to Black's Run.

The profile below depicts the route the daylighted stream would take. First the stream would flow through the existing outlet in the foundation and drop in grade at a minimum of 0.5% slope as it makes its way to Black's Run. The stream and any stormwater runoff will drain to a culvert and cistern located under the access road. This cistern can be emptied using an internal pump and by opening a valve that will release flow to Black's Run, or it can be used for irrigation purposes. If the cistern is full, the stream will continue its course and flow under the access road and return to an open channel condition. The end of the culvert exiting the cistern as well as the discharge pipe from the cistern will have a backflow preventer installed, which will allow flow to move out (towards Black's Run) but not back in during storm events. This will prevent the garden area and Harrison House from being flooded when Black's Run rises in elevation. After discharging from the culvert, the stream will meander to its confluence with Black's Run.



NOTE: THIS SCHEMATIC HAS BEEN COMPLETED FOR PRESENTATION PURPOSES ONLY. THESE PLANS HAVE BEEN PREPARED WITHOUT SURVEY DATA OR ENGINEERING ANALYSIS.

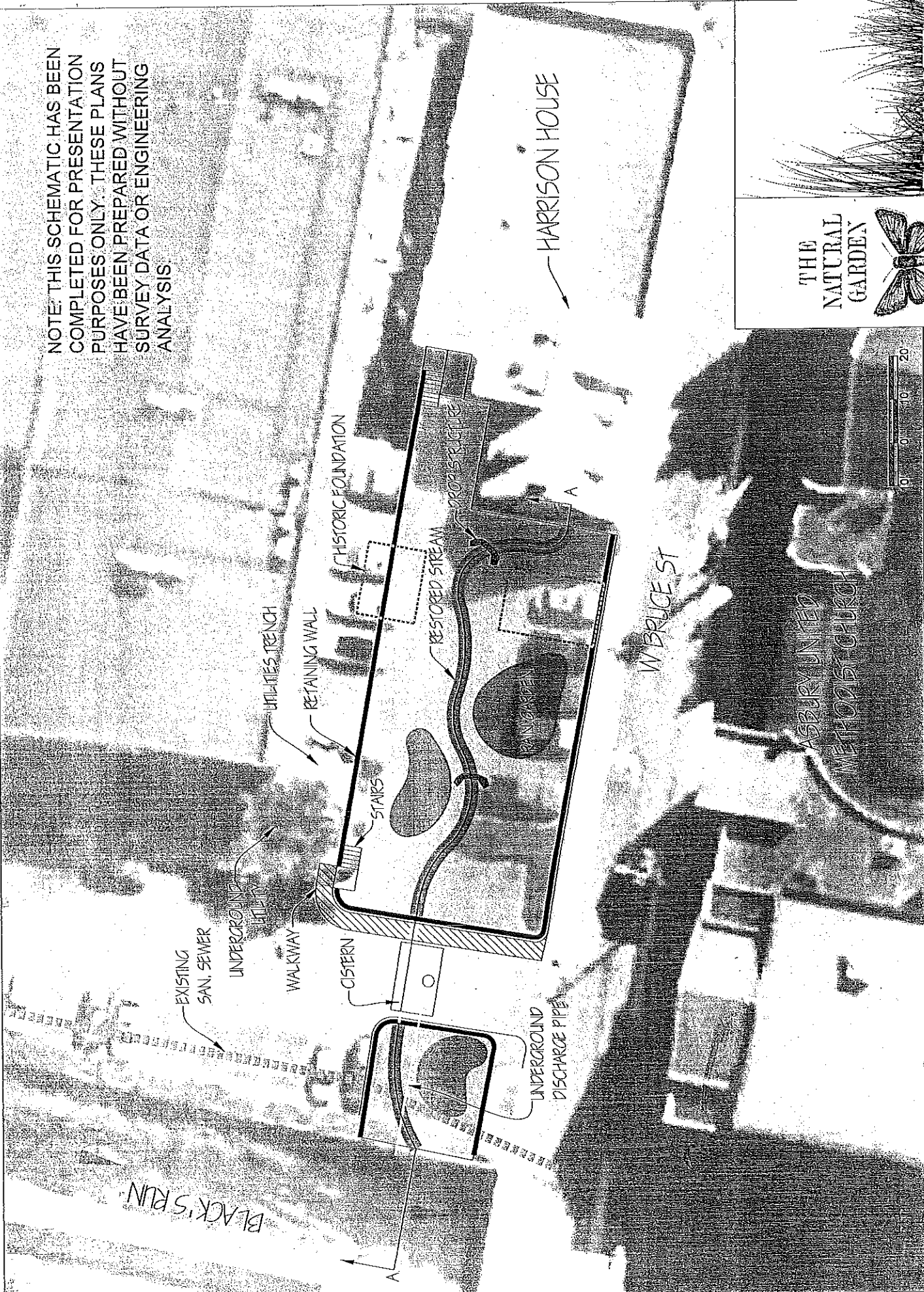
THE  
NATURAL  
GARDEN



ECOSYSTEM  
SERVICES

# Harrison House Schematic - Profile A-A

NOTE: THIS SCHEMATIC HAS BEEN COMPLETED FOR PRESENTATION PURPOSES ONLY. THESE PLANS HAVE BEEN PREPARED WITHOUT SURVEY DATA OR ENGINEERING ANALYSIS.



ECOSYSTEM SERVICES

# Harrison House Schematic - Plan View

# Thomas Harrison House

## Restoration

### Budget Estimates

February 2012

House Research, Documentation and Restoration	\$ 725,000
Hallway Removal & Reconstruction/Office Renovations	\$ 280,000
Photo/Video Documentation and Web/Mobile App Development	\$ 35,000
Garden Construction & Plant Research	\$ 1,187,000
Interior & Exterior Archaeological Excavations	\$ 242,000
Sewer Disconnection & Cistern/Water Management System	\$ 140,000
Total	\$2,609,000