

**Banneker School Restoration and
Master Plan
for the
Banneker School Foundation and
Historic Site
Parkville, Missouri**

**FINAL DRAFT
April 24, 2010**

With assistance from
The National Trust for
Historic Preservation
Jeffris Heartland Fund



BANNEKER SCHOOL MASTER PLAN

Table of Contents



Acknowledgements

1.0 Introduction

1.1 History of Banneker School

1.2 Banneker School Foundation and Historic Site Foundation

2.0 Existing Conditions

2.1 Overview

2.2 School Site

2.3 Building Exterior General

2.3.1 West Elevation

2.3.2 East Elevation

2.3.3 South Elevation

2.3.4 North Elevation

2.4 Building Interior General

2.4.1 West Interior Elevation

2.4.2 East Interior Elevation

2.4.3 South Interior Elevation

2.4.4 North Interior Elevation

2.5 Structural Analysis

2.6 Mechanical, Electrical and Plumbing

2.7 Building Codes and Accessibility

2.8 Residence at 703 West Street

3.0 Recommendations

3.1 General Overview

3.2 School Restoration

3.3 Interpretive Center (residence at 703 West Street)

3.3.1 Building Code and Accessibility

3.4 Overall Site

3.5 Implementation Strategies

Appendix A: Statements of Probable Cost

Appendix B: National Trust for Historic Preservation Technical Briefs

Appendix C: Secretary of the Interior's Standards for Restoration

BANNEKER SCHOOL MASTER PLAN

ACKNOWLEDGEMENTS



The People Behind this Mission

This project would not be possible without the significant contributions of the people and organizations listed.

NATIONAL
TRUST
FOR
HISTORIC
PRESERVATION®

The Master Plan was funded with a matching grant by the National Trust for Historic Preservation Jeffris Heartland Fund.

JEFFRIS HEARTLAND
FUND

The current Board of Directors for the Banneker School Foundation and Historic Site, Parkville, Missouri:

Officers:

Daisy Young—Chair

Ellen Underkoffler—Vice Chair

Scott D. McRuer—Treasurer

Liz Miller—Secretary

Board Members:

Carla Barksdale

Eddie Batts

Jim Brooks

Mary Celeste

Connie Friends

Paul Gault

Gaylon Hoskins

Russ Jones, Jr.

Jim Pearl

Rosetta Scott

Judy Shafe'

Tim Westcott

Marva Williams

Preston Young

Legacy Partners:

Park University

City of Parkville, Missouri

Park Hill School District

Platte County, Missouri

Platte County Historical Society

In honorarium: Mrs. Lucille Douglass

BANNEKER SCHOOL MASTER PLAN

1.0 INTRODUCTION



1.1 History of Banneker School

The history of such a small structure could not be bigger than its physical form. Construction for the original Banneker School commenced in 1885. Prior to that time, post-Civil War African American children in the Parkville area were educated in the basement of Parkville's Missouri Valley Hotel, then in Park College's Bergen Hall. It was determined that the scholars needed their own facility and land previously purchased by Park College was allocated for the construction of a one-room school for the specific purpose of educating African American children. Students at Park College (now Park University) created the bricks in the College kilns.



Banneker School, Parkville, Missouri 1898

It is uncertain when the structure was completed. Documentation exists touting the graduating class of 1898 which could possibly be the first graduating class. The small building quickly outgrew the needs of the many students it sought to serve. In 1898, Banneker School teacher E.A. Robinson noted at a graduation ceremony for students through grade six that there were 50 scholars currently enrolled. By October 1889, classes through grade ten were taught with an enrollment of 58 students. By February of 1899, enrollment had reached 69. Given the size of the original Banneker School, it is hard to imagine that many students occupying it. It is documented that in 1902 bids were sought for construction of a new, larger educational facility. It is uncertain when the original Banneker School ceased to operate, but it is believed to be circa 1905.

The school was named for Benjamin Banneker (1731-1806), an African American who sought after knowledge in many areas, as well as fought for the freedom of his race. He was an extremely intelligent individual, most notably teaching himself about astronomy and producing several publications on the subject.

After the closure of the original school, the building was turned into a residence and remained a residence for many years. Modifications to the school included the addition of a kitchen on the south side, construction of a bathroom inside, addition of a fireplace and chimney on the west, modification to the fenestration on the west for new window openings, addition of a new entrance on the east, adding electrical, central heating, and other miscellaneous walls inside.



History of Banneker School (continued)

In the 1980's, Mrs. Lucille Douglass, who taught at the subsequent Banneker School in the 1940's, discovered that a developer had purchased the original Banneker school and planned to demolish the structure. It was her foresight and leadership that have led us to this critical juncture of its restoration. She was able to purchase the property from the developer and deeded the property to the Platte County Historical Society.



Mrs. Lucille Douglass
1914-2003

For such a small building with such a large, important function at a historic time in our Country's history, the structure still provides us with an education that is worth learning. A building such as Banneker School provides us with an important insight into our past and is well worth all efforts to save it.

The building was listed on the *National Register of Historic Places* in 1995 for its significance of Ethnic Heritage – Black Education. In 2008, it was listed on *Missouri's Most Endangered Historic Places* because of its significant deterioration.

1.2 Banneker School Foundation and Historic Site Foundation

After Mrs. Lucille Douglass deeded the property to the Platte County Historical Society, it was later determined that a separate non-profit needed to be established to carry on the task of restoring the school. Formed in 2008, the Banneker School Foundation and Historic Site, Parkville, Missouri (Banneker Foundation) was established to carry on the mission of Mrs. Douglass. The property was deeded to the Banneker Foundation.

Prior to the Banneker Foundation formation, under the Platte County Historical Society, grassroots efforts were implemented from raffles to picnics. The most successful was the donation of one million pennies from the students at Union Chapel Elementary School, raising \$10,000 for the restoration project.



The mission of the Banneker Foundation is to restore the building to its original condition, in as much as it is practical to do so. It is the intent to keep the school at its original location and convert it to a living history museum where learners receive the opportunity for interactive cultural awareness, history, and understanding of the value of diversity.

The Banneker Foundation has been diligently pursuing its goal of restoring the original school.

With the help of a \$5000 grant in 1996 from the Historic Preservation Fund Frant from the Missouri Department of Natural Resources the Foundation was able to start the restoration project by removing the kitchen addition, removing all interior partitions, removing the fireplace on the west, restoring the original window openings on the west, closing in the added openings on the west, adding a corrugated metal roof, and several other interior modifications.

In 2009, the Banneker Foundation received a matching grant for \$10,000 from the National Trust for Historic Preservation Jeffris Heartland Fund to prepare this Restoration and Master Plan for the School and Interpretive Center.

BANNEKER SCHOOL MASTER PLAN

2.0 EXISTING CONDITIONS

Existing Assessment of Banneker School



2.1 Overview

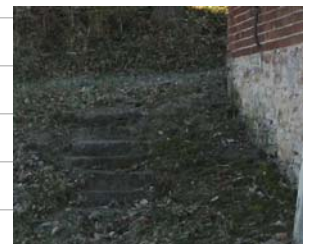
As of this date, the historic school is in an extremely deteriorated condition. It is nearly inaccessible on the interior due to the damage to the floor from the weather exposure. BeFree Architecture was able to gain access to the first floor only but was limited in its ability to access all portions of the interior for close inspection. The basement was inaccessible. Because of this inaccessibility, this assessment relies heavily on previous assessments provided by Claybaugh Preservation Architecture (1996) and Susan Richards Johnson and Associates (2005) in association with Donald S. Jack & Associates. Refer to the Appendix for copies of these reports.



All window openings are covered with protective plywood so the condition of the openings could not be fully assessed. The non-historic door on the east is exposed and falling out of the jamb.

2.2 School Site

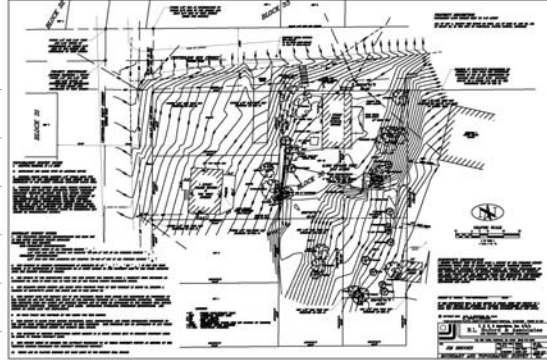
The property that the school sits on is extremely steep with two semi-level areas on the south and east. Some of the grade slopes toward the school. The stone foundation is largely exposed on the north and west. The door to the basement is located on the west and has a small retaining wall adjacent. There is an existing power pole on the north with no apparent power currently running into the building. Also on the north are two existing sets of steps, one concrete which is probably not original, and one comprised of stone slabs that may be original. Neither meet Code, nor do they run to the street. They are not safe for public use due to settlement, no landings, and lack of handrails.



There is an existing underground storage structure to the southeast of the school. It is a stone and concrete structure that appears to be in stable condition. There is no door on the structure, and it is filled with miscellaneous items, including some salvaged brick. It is probable this



To the southwest of the school, near the property line, is a stone retaining wall. It appears the retaining wall is stable but in need of some work. There are several loose stones near the top of the retaining wall.



Topographical Survey of Existing Properties

2.3 Building Exterior General

The building is constructed of a double wythe brick wall in a Flemish bond resting on an 18" stone foundation. In the recent past, the addition on the south was removed as well as a chimney on the west side. Two non-original window openings on the west were infilled and the three original openings were re-stored. It is evident on the west elevation where stone and brick were replaced. The stone does not match the original exactly but is a close match. The infill brick was not re-installed following the Flemish bond pattern and the mortar does not match the original in color or texture.



All original openings are intact. On the east elevation, a new door was added at one of the window openings and still remains. All openings are covered with plywood with the exception of the non-original door.

The metal roof was added in the recent past. The eaves and fascia are in a very deteriorated condition, with several large gaps where the fascia is missing completely. As such, the interior is exposed to the weather.

2.3.1 West Elevation

The West elevation has had the three original window openings restored; two non-historic windows closed up, and the non-historic chimney removed. There is significant damage to the fascia and eave; it is completely missing for several feet allowing the elements to enter the school. The brick is in decent shape for the most part. Where the chimney was removed, some of the brick face has spalled off. Starting above the door to the basement and extending to the south of the northern window, it is apparent that some repointing was done as the mortar color does not match the rest of the elevation. It appears that the northern portion of this elevation has some type of paint coating. A crack was noted at the northern window sill.



West Elevation

The stone appears to be in good shape where exposed. There is evidence of soil to the southern end indicating that the grade may be sloping towards the school.

The condition of the door to the basement could not be assessed due to the plywood currently covering the opening. From the previous assessments it is believed that the original door may be in tact in this opening.

2.3.2 East Elevation



This elevation has significant damage to the brick. The brick under the southern window is spalling and loose in places. The brick at the door that was cut-in when the school was converted to a residence is literally falling out towards the bottom of the jambs. The brick at the base of wall at the southeast corner is also very loose. There is apparent repointing that was performed at the southeast corner in recent past, it appears that inappropriate mortar was used, and a crack has formed in the brick just north of this corner most likely caused by inappropriate mortar hardness.

The stone foundation is not exposed on this elevation. Its condition cannot be assessed from the exterior.

East Elevation

The eave and fascia are also very deteriorated and missing in places.

2.3.3 South Elevation

The south elevation still shows evidence of the kitchen addition that was removed. There are tar stains from the addition's roof, and some plaster still remains from what would have been the finish for the kitchen. There is also a wood rim board that exists from where the old roof tied into the existing school. At the base are significant signs of soil which indicates that the drainage and grade in this area requires attention. Upon inspection of the building, it was also noted that immediately outside the original entrance into the school, the ground is extremely soft and depressed. This would indicate when the basement that was under the kitchen addition was removed it was not properly backfilled. There are loose bricks located under the door threshold.



South Elevation

The mortar joints differ in color between the lower and upper sections of the gabled end. This could be from the addition of plaster to the lower section, or there was inappropriate repointing done in the past.

2.3.4 North Elevation

The brick and stone on the north elevation are in stable condition. The hole where the stove pipe would have come through the wall has been in-filled.

There is exposed conduit on the exterior of the building where the power probably entered the school at one point.

The eave appears in decent shape and should be salvageable.



North Elevation

2.4 Building Interior General

The interior has suffered from years of neglect and exposure to the elements. The floor has several holes. There is evidence of termite damage as well as wood rot in the floor joists. The west side of the roof is currently supported by shoring as most of the joists on this end have rotted beyond the ability to carry the roof load. In several cases, the joists no longer reach the bearing plate on the wall. All remnants from when the school was converted to a house have been removed, but there is evidence where walls were removed and where the added fireplace was removed.

The ceiling joists appear to be original and suffer from the same deterioration at the ends as the roof joists. Evidence of plaster lath is evident although no ceiling plaster remains.

As noted in the building exterior section, the brick walls have suffered from inappropriate re-pointing and years of neglect. There is no significant bowing or specific structural concerns at this time, but given some evident cracking and spalling on the exterior, the walls need to be addressed in the near future.



Interior looking North

2.4.1 West Interior Elevation

The west interior had a masonry parge coating added at some point in the recent past. Very little plaster remains on this elevation. Because of the parge coating, it is not clear what condition the brick is in. Similar to the east elevation, evidence of the original painted chalkboard still exists on the northern portion of the wall. There are no windows in the window openings, however, two windows are located inside that presumably once occupied two of the three window openings. No window trim remains.



West Interior Elevation

2.4.2 East Interior Elevation



East Interior Elevation

The east interior has very little plaster remaining. The exposed brick is in very poor shape. The original windows are still in the north and south window openings, albeit in very bad shape but salvageable. What appears to be the original window trim is still in place. The existing door on this elevation was added when the school was converted to a residence and is considered non-historic. The arch over the original window opening is still intact and the opening can easily be restored back to a window opening. Evidence of the original painted chalkboard still exists on the northern portion of the wall.

2.4.3 South Interior Elevation

The south interior is where the original door into the school is located. The original door frame and some trim remain intact. The original door is located on site and will require repair but should be able to be reused. The transom that existed above the door no longer exists. Some plaster also remains on this wall, but as stated previously, it is necessary to remove it to repoint the brick wall to protect its structural integrity.



South Interior Elevation

2.4.4 North Interior Elevation



The north interior wall still has a small portion of existing wood wainscot. The hole from the old stove pipe still exists as well. Some plaster remains, but given the fact that the brick needs to be repointed on both the interior and exterior, it should be removed.

North Interior Elevation

2.5 Structural Analysis

BeFree Architecture did not seek the expertise of a Structural Engineer, it was pretty obvious from the past reports and the on-site inspection that there is significant structural damage. Generally, the floor and roof framing are structurally unsound. As noted previously, the roof rafters have rotted to the point that shoring had to be installed to support the west side. The floor joists have significant termite and water damage at the bearing ends. The foundation appears to be holding its own. Where it is exposed on the north and west, the exterior stone appears in decent shape. As noted in previous reports, there apparently are some areas of concern on the east and south that will need to be addressed.

2.6 Mechanical, Electrical and Plumbing

The building does not currently have any power. There are remnants of electrical conduit on the interior and exterior. Because the basement was inaccessible, it is unclear whether an electrical panel exists. It is also unclear whether the existing furnace installed when the school was used as a residence still exists in the basement. There is no evidence of any ductwork or registers on the first floor. It appears that the plumbing was completely removed from the first floor. Again, it is uncertain whether any plumbing remains in the basement. If any sewer lines are still in place around the perimeter, these will be uncovered at such time as the foundation is excavated and can be removed at that time.



Light Switches on East Elevation

2.7 Building Codes and Accessibility

The City of Parkville has adopted the 2006 International Building Code (IBC). Under the IBC, the restored school will be considered an Assembly occupancy (A-3). It is not anticipated that many alterations will be needed to bring the structure up to current codes as it is such a small structure that will have few restrictions from the code because of its size.

The existing school does not meet the American's With Disabilities Act (ADA) currently because of the entrance on the south which is not at grade. This can be easily addressed during the restoration, however, the site presents the most significant issues with meeting accessibility given the steep slopes from the public right-of-way to the school. This issue will be addressed in the Recommendations section of this document.

2.8 Residence at 703 West Street

The Foundation has the first right of refusal on purchasing the property to the west of the school. Because of the proximity, it is included in this document as a viable future Interpretive Center for the Master Plan.

Similar to the school property, the west property has very steep grades. Currently, the residence is a rental property. It is a simple wood-frame rectangular structure, approximately 565 gross square feet. The foundation is constructed of concrete masonry units. It has a crawl space. The building is clad in wood siding and has a composite shingle roof.

On the west, the main entrance is accessed by a wooden stair. On the south is another exterior door. On the east is a low level wooden deck with a sliding door to the interior. There is a gravel drive coming off of 8th Street. BeFree Architecture was not able to obtain access to the interior.



703 West Street looking northeast

BANNEKER SCHOOL MASTER PLAN



3.0 RECOMMENDATIONS

3.1 General Overview

Upon creation of the Banneker Foundation, it became clear that a document needed to be developed to guide the Foundation towards its ultimate goal – the restoration of this historic school and an accompanying Interpretive Center to educate the public about the school and facilitate tours.

The Foundation has established the following phases to achieve its goal.

Phase 1: Preparation of the Master Plan

Phase 2: Restoration of the school; acquisition of the adjacent property to the west

Phase 3: Development of Interpretive Center and site

Phase 1 has been achieved with the completion of this document and lays the ground work for completing the next phases which will depend largely on fund-raising efforts and grants.

Phase 2 will depend on grants, volunteers, and fund-raising. A cost estimate is included with this document for the restoration to provide the Foundation with the information needed to utilize funds already in hand and seek appropriate funds to target specific areas of the restoration based on priorities set by this document. The Foundation already has first right-of-refusal for the property to the west. At such time funding is in hand for this purchase, acquisition of the site will occur.

Phase 3 will include renovation of the existing house and site improvements to make the site accessible and tie both properties together.

3.2 School Restoration

The drawings included with this plan outline the recommended tasks for full restoration of the school with the assumption that it will be performed under one construction contract. All restoration activities shall conform to the *Secretary of the Interior's Standards for Restoration*. Also refer to the Appendix for applicable National Park Service Preservation Briefs. The documents have been prepared to bring the school back to its condition circa 1885 when it was originally constructed, to the full extent as the information exists to achieve that goal.

Given the reality of current funding available, it is highly likely that the work will be performed in pieces. Because of that reality, priorities have been established to fulfill the intent of the documents.

The school currently has great exposure to the weather because of the missing fascia mainly on the west. The first priority is to make the exterior shell weather tight to prevent any further damage. Due to the current shape the structure is in and the limited funding available, the following priorities are strongly recommended to be addressed in the order presented:

1. Repoint and repair the brick walls on the interior and exterior to provide a stable bearing wall for the roof.
2. Repair and/or replace the roof rafters, ceilings joists, and replace the roof with an historically appropriate wood shake shingle.
3. Repair and/or replace the fascia and eave. Paint all exposed wood. Install gutters and downspouts.
4. Excavate the soil around the stone foundation. Repair and repoint the foundation. Waterproof the stone below grade. Backfill and regrade around the foundation.
5. Salvage the existing flooring. Remove and replace the entire wood floor structure. Reinstall the existing wood flooring and install new flooring where the existing is missing to match the original floor.
6. Rebuild/build new windows. Rebuild and repair doors.
7. Restore and refinish interior.
8. Install mechanical and electrical as noted on drawings.

The construction documents are included as part of this Master Plan. Please note that they are not printed to scale so that they will fit the sheet size of this document.

3.3 Interpretive Center (residence at 703 West Street)

It is desired that the property due west of the Banneker School will be acquired for the development of an Interpretive Center. As mentioned above, the property owner is willing to sell the property at such time as the Foundation has the funds. The existing one story house on the property is currently a rental property.

In order to make this whole project a success, the Interpretive Center is a vital component. The Interpretive Center will provide the public restrooms, exhibit space, storage, and administrative work area necessary to support the vital role of the school as a Living History Museum.

Improvements needed to make this one-bedroom house into the Interpretive Center include:

- Gutting the entire interior and removal of all non-bearing interior partitions.
- Removing miscellaneous windows to reflect the new interior layout.
- Removing and covering over the existing front door to reflect the new interior layout.
- Removing the existing sliding door on the east and reconfiguring it to be the new entrance.
- Adding two accessible restrooms.
- Adding storage closets.
- New finishes on the interior.

Once these improvements are made, the Foundation will provide the necessary furniture and displays to make the Interpretive Center complete.

3.3.1 Building Code and Accessibility

The Interpretive Center will also fall under the 2006 IBC Building Code. It will also be considered an Assembly Occupancy (A-3). Because of it's small size, the structure will be able to meet current building code even given it's current construction type. It falls well below the square footage for many of the code requirements.

The structure is not currently accessible. The new entrance proposed for the east side will include removing the existing deck and providing an accessible path to the new entrance.

Drawings of the existing residence and the proposed improvements are included following this section. Please note that the drawings are not to scale, and please note that the existing conditions are based on a sketch provided by the property owner as access to the interior was not allowed.

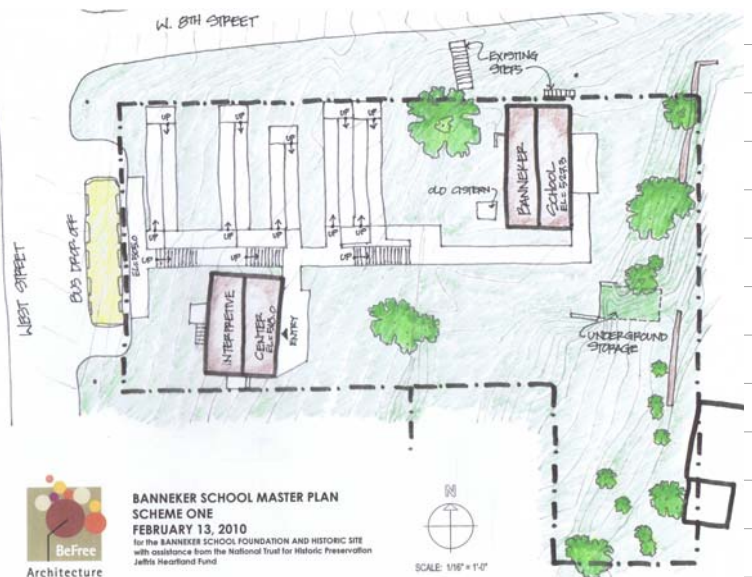
3.4 Overall Site

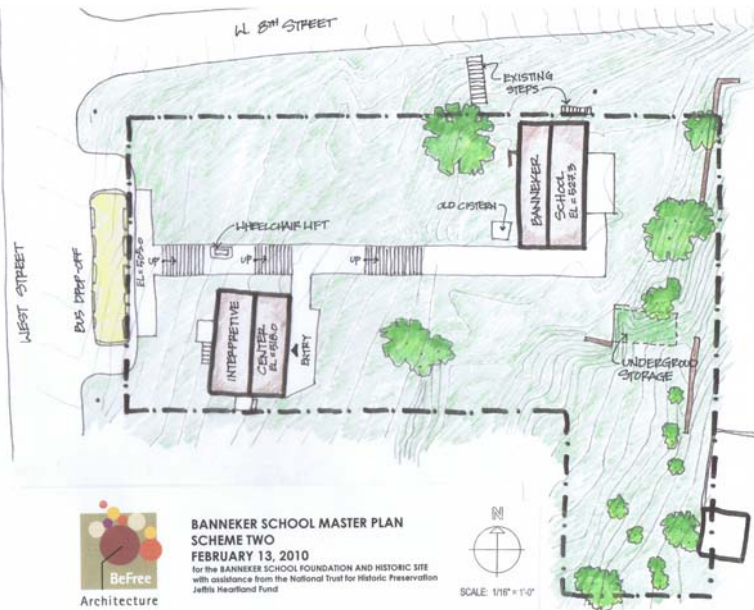
The most complicated component of this master plan is the site. Part of Parkville's charm is its undulating landscape, but it creates several challenges when it comes to making a site accessible for public use.

A topographical survey was provided on November 12, 2009 by C.E.K. & Associates d/b/a as R.L. Buford & Associates. Based on the survey, the noted floor elevations of the existing house and existing school were found to have a 9 foot differential in elevation. From West Street to the proposed entry to the Interpretive Center there is a 13-14 foot differential. The challenge in making the site accessible is providing a means of travel that could transverse a vertical distance of 22-23 feet from the bus drop-off to the school. This is the equivalent of over two stories. An elevator was not an option as it requires vertical travel, not an incline over a large distance.

BeFree Architecture presented the Foundation with three options for unifying the site and making it accessible. All schemes were uniform in that a bus drop-off area would be provided off of West Street to the west of the proposed Interpretive Center. All schemes were also consistent that there would be a central circulation spine through the middle of the Interpretive Center site consisting of stairways tying it to the School as this was the logical solution given the siting of the existing house and the school. The three schemes are described so it can be noted the exercises that the Foundation grappled with in determining the final solution.

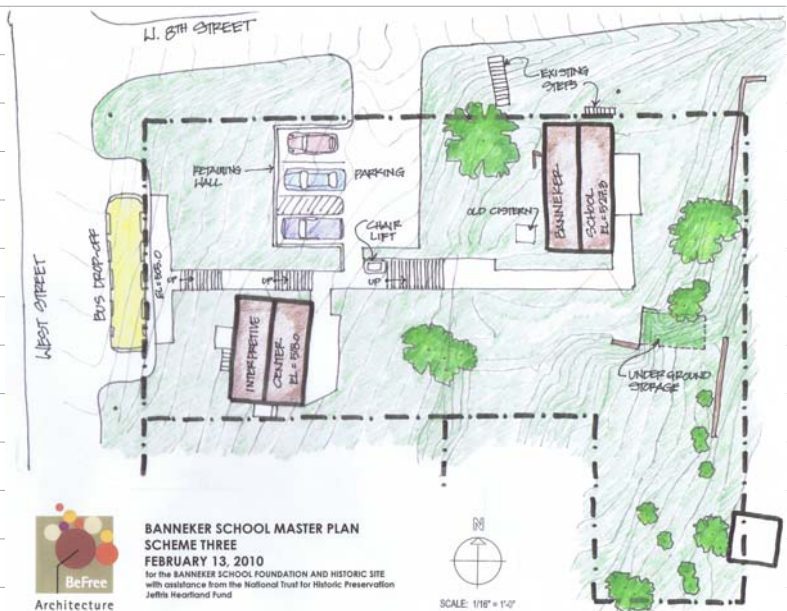
Scheme One looked at providing accessibility via a series of ramps. This scheme developed out of a design that a Foundation member had sketched out for a grant application. The purpose of developing this scheme was to show that it really was not an option. Because of ADA and Code requirements, a ramp cannot rise more than 30 inches before it has to have a landing. Needless to say, most of the site was enveloped in ramps. This scheme would have had handicapped visitors transverse over 300 feet of ramps. Although it was necessary to explore this idea, it proved to show that it was not a viable option.





Scheme Two looked at providing a wheelchair lift up a central stairway spine from West Street. The lift included a stop at the Interpretive Center and then another incline up a stair to the school. This scheme left the majority of the site untouched, which from a historic preservation stand-point is desirable.

Scheme Three addressed having parking on site. It includes a small parking lot just to the north of the Interpretive Center with one handicap space, and two general spaces. This allows accessibility to the Interpretive Center and School to be addressed from mid-site off of West 8th Street thereby only having to address a 9-foot differential. There is still a central stair circulation spine through the site, but the wheelchair lift would only be required for the last flight of stairs. This was the scheme chosen by the Foundation.



3.5 Implementation Strategies

Given that there will possibly be a significant time frame between the restoration of the school and the full implementation of this master plan, BeFree Architecture talked to the City of Parkville about measures that needed to be taken in the interim so that the Foundation could provide tours of the facility before the Interpretive Center and ultimate site build-out are complete. It was agreed that on-site parking would not be required in either scenario. It is anticipated that most visitors will arrive by school bus, and that the bus will find parking nearby until such time as needed to come back and pick up the visitors. There is ample on-street parking although the streets are narrow. The City did not anticipate this being a problem, but if it became a problem, they felt that it could be addressed at that time.

It will be necessary to provide portable toilets until the restrooms are constructed inside the Interpretive Center.

In order to address accessibility to the school proper until such time as the full site improvements are implemented, the City agreed that a temporary wooden stair from West 8th Street to the school that meets Code would be allowed. If visitors are in need of accessibility, they would need to contact the Foundation 24 hours in advance so that measures could be taken to accommodate them. Equipment exists that accommodate manually lifting someone in a wheelchair up a flight of stairs. The documentation of these stairs is not included in this plan.

The following Site Plan is the one adopted by the Foundation. It is not to scale as it was printed to fit the format of this document.

BANNEKER SCHOOL RESTORATION

Construction Documents

31 West 8th Street Parkville, Missouri



PROJECT LOCATION

SHEET INDEX

A100 BASEMENT FLOOR PLAN
A101 FIRST FLOOR PLAN
A120 BASEMENT REFLECTED CEILING PLAN
A121 FIRST FLOOR REFLECTED CEILING PLAN

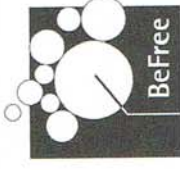
A200 EXTERIOR ELEVATIONS
A201 EXTERIOR ELEVATIONS
A202 EXTERIOR ELEVATIONS
A210 INTERIOR ELEVATIONS

A300 BUILDING SECTIONS

A500 BUILDING DETAILS

CODE REVIEW

OCCUPANCY: A-3 (Assembly - Museum)
CONSTRUCTION TYPE: V-B
FIRE-RATED CONSTRUCTION: Not required
ALLOWABLE SQUARE FOOTAGE: 6,000 S.F.
ACTUAL SQUARE FOOTAGE: 618 G.S.F.
ALLOWABLE STORES: One
ACTUAL STORIES: One
OCCUPANCY: 542 N.S.F./15 = 36 Occupants
EXITS: One required per Table 1015.1 (less than 49 Occupants)



BeFree
Architecture
BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langankamp, AIA, LEED AP
Architect
Missouri License No. A-007962

**BANNEKER SCHOOL
RESTORATION**

31 West 8th Street

for the

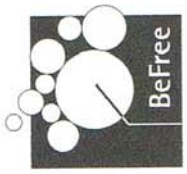
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRUS
HEARTLAND FUND

© 2010 BeFree Architecture LLC
APRIL 24, 2010

COVER SHEET

A000



BeFree Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langelkamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNEKER SCHOOL
RESTORATION

31 West 8th Street

for the

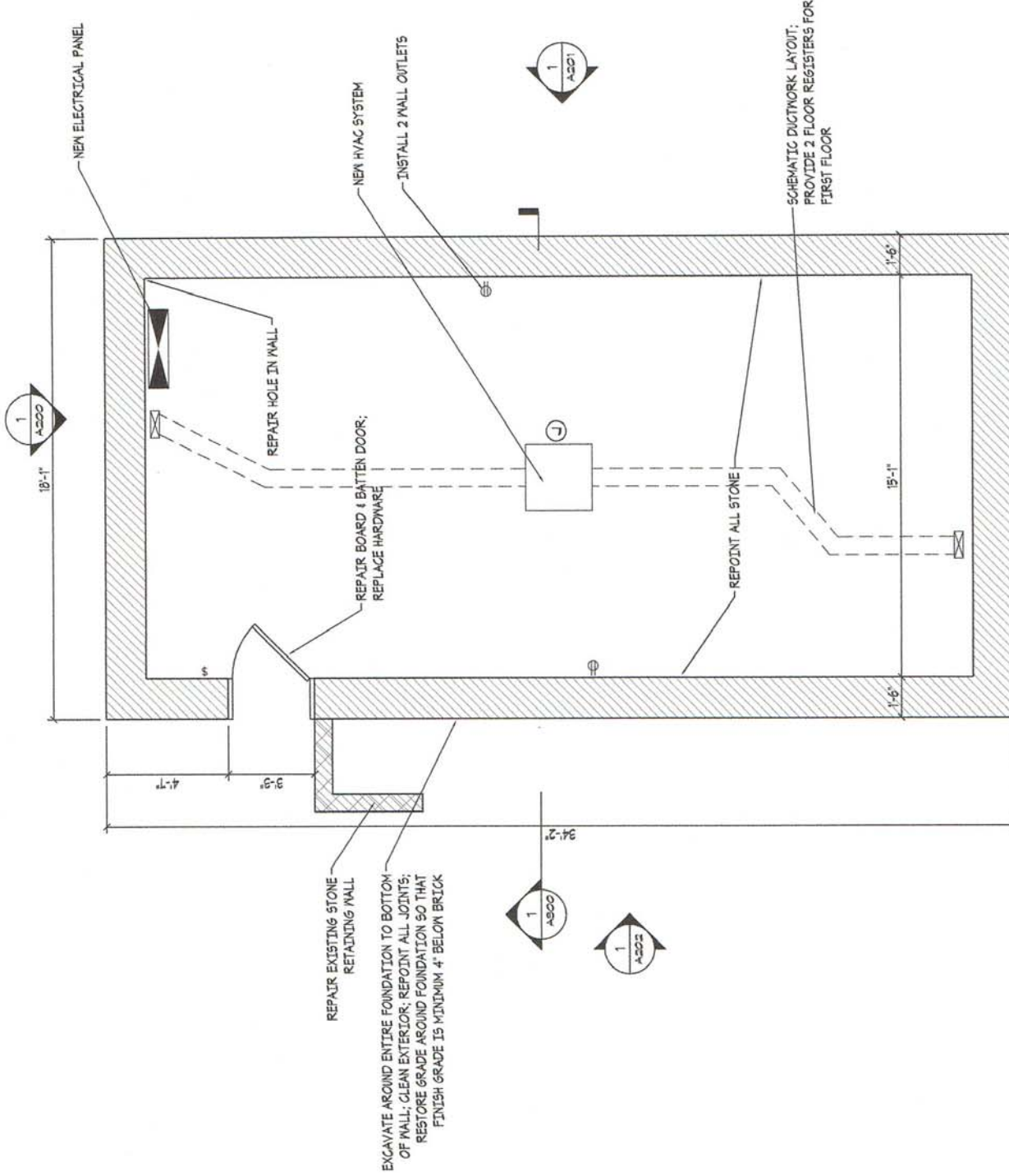
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

© 2010 BeFree Architecture LLC
APRIL 24, 2010

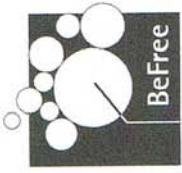
BASEMENT PLAN

A100



1 BASEMENT FLOOR PLAN
1/4" = 1'-0"





BeFree Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langelamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNEKER SCHOOL RESTORATION

31 West 8th Street

for the

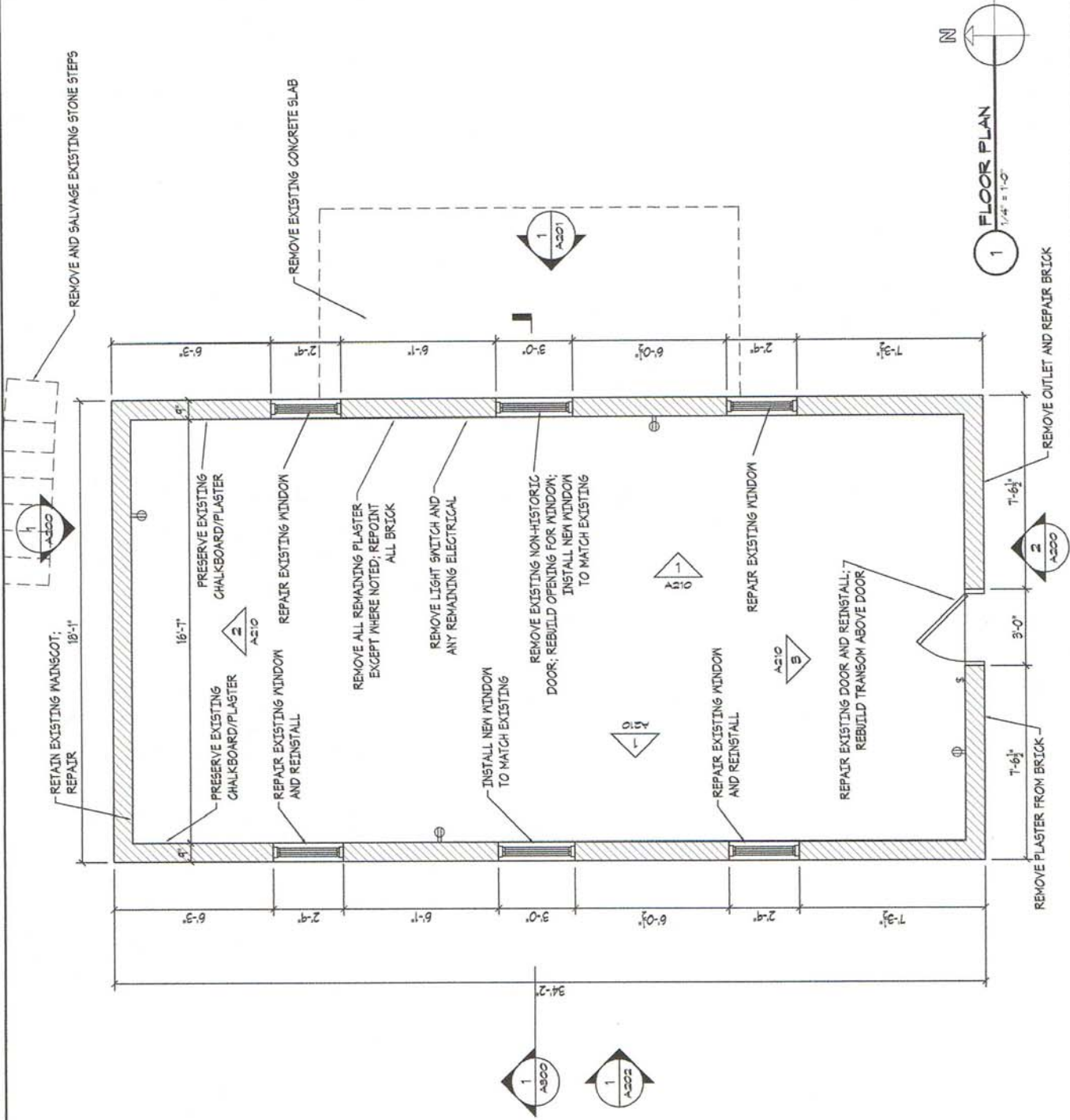
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

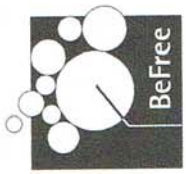
with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

© 2010 BeFree Architecture LLC
APRIL 24, 2010

FLOOR PLAN

A101





BeFree Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langerkamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNEKER SCHOOL
RESTORATION

31 West 8th Street

for the

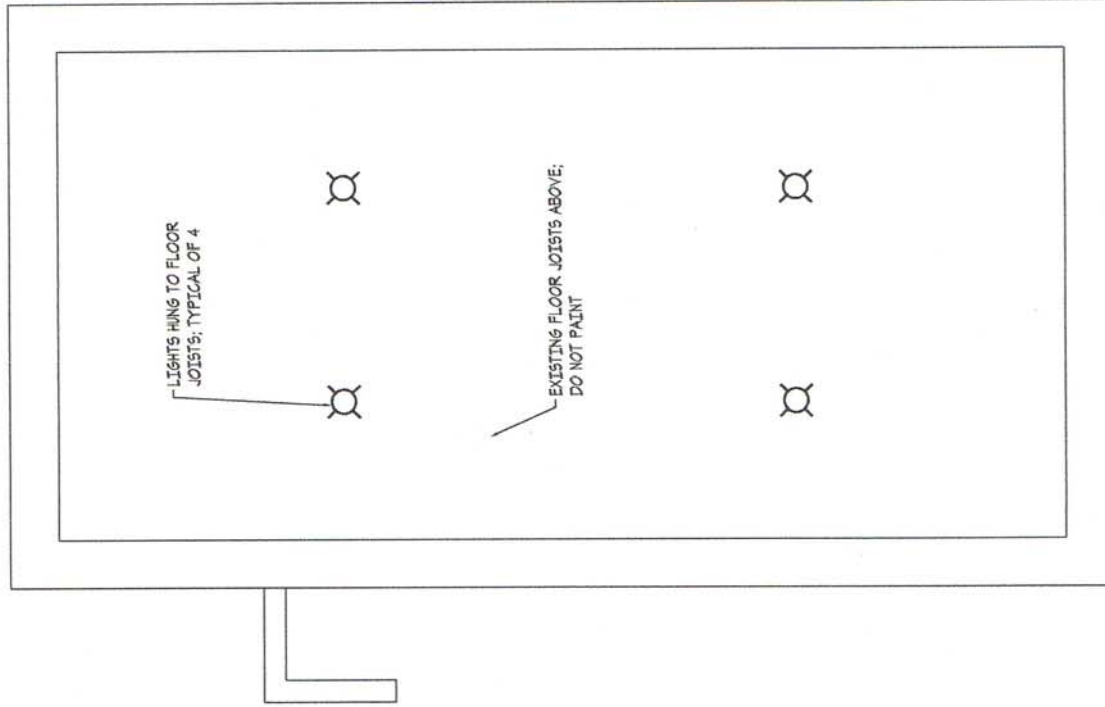
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

© 2010 BeFree Architecture LLC
APRIL 24, 2010

BASEMENT REFLECTED
CEILING PLAN

A120



1 BASEMENT REFLECTED CEILING PLAN

1/4" = 1'-0"



BeFree Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Friesel Langerkamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNEKER SCHOOL RESTORATION

31 West 8th Street

for the

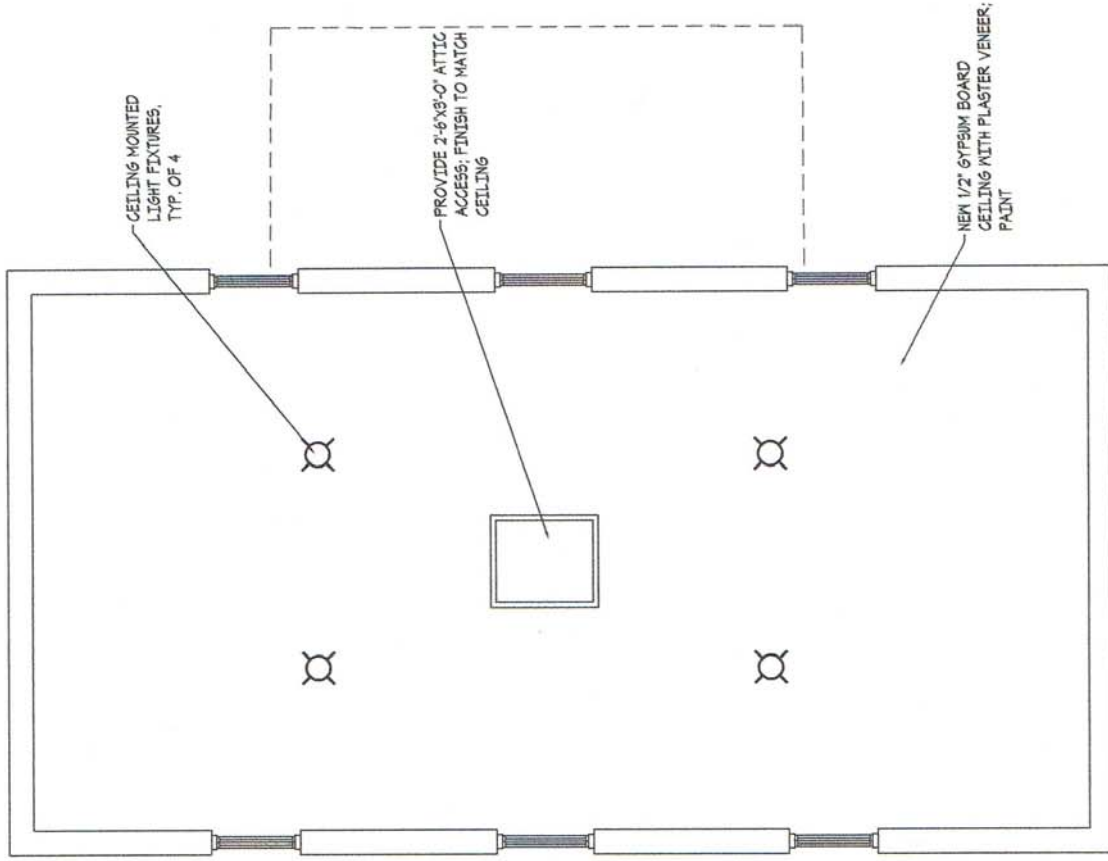
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

© 2010 BeFree Architecture LLC
APRIL 24, 2010

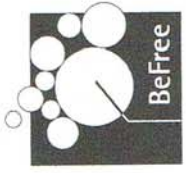
FIRST FLOOR REFLECTED CEILING PLAN

A121



1 FIRST FLOOR REFLECTED CEILING PLAN

1/4" = 1'-0"



BeFree Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langerkamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNEKER SCHOOL
RESTORATION

31 West 8th Street

for the

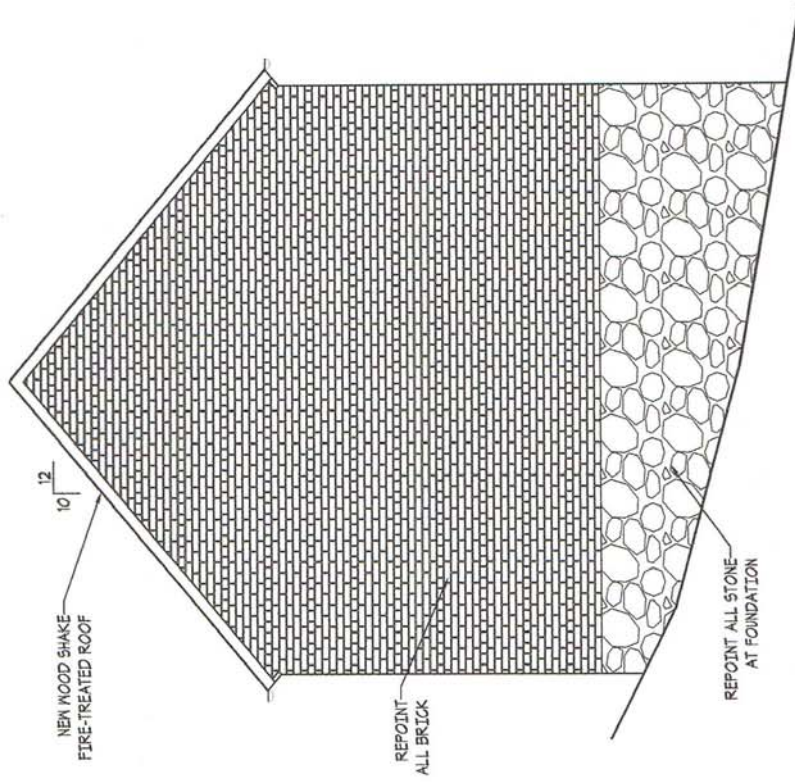
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

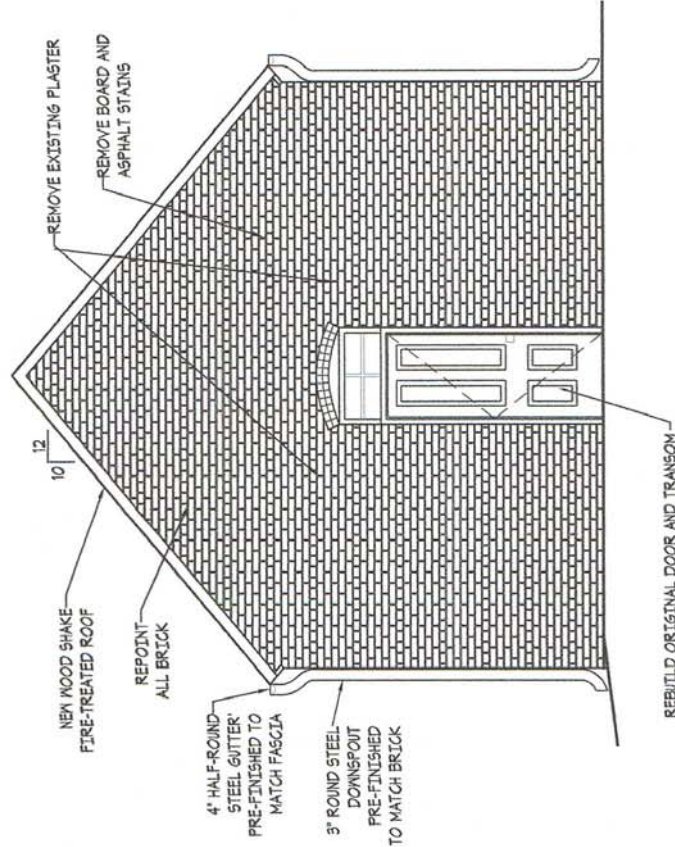
© 2010 BeFree Architecture LLC
APRIL 24, 2010

EXTERIOR
ELEVATIONS

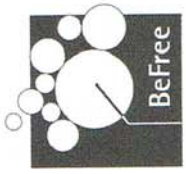
A200



2 SOUTH ELEVATION
1/4" = 1'-0"



1 NORTH ELEVATION
1/4" = 1'-0"



BeFree
Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816-223-5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Friesen Langenkamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNEKER SCHOOL
RESTORATION

31 West 8th Street

for the

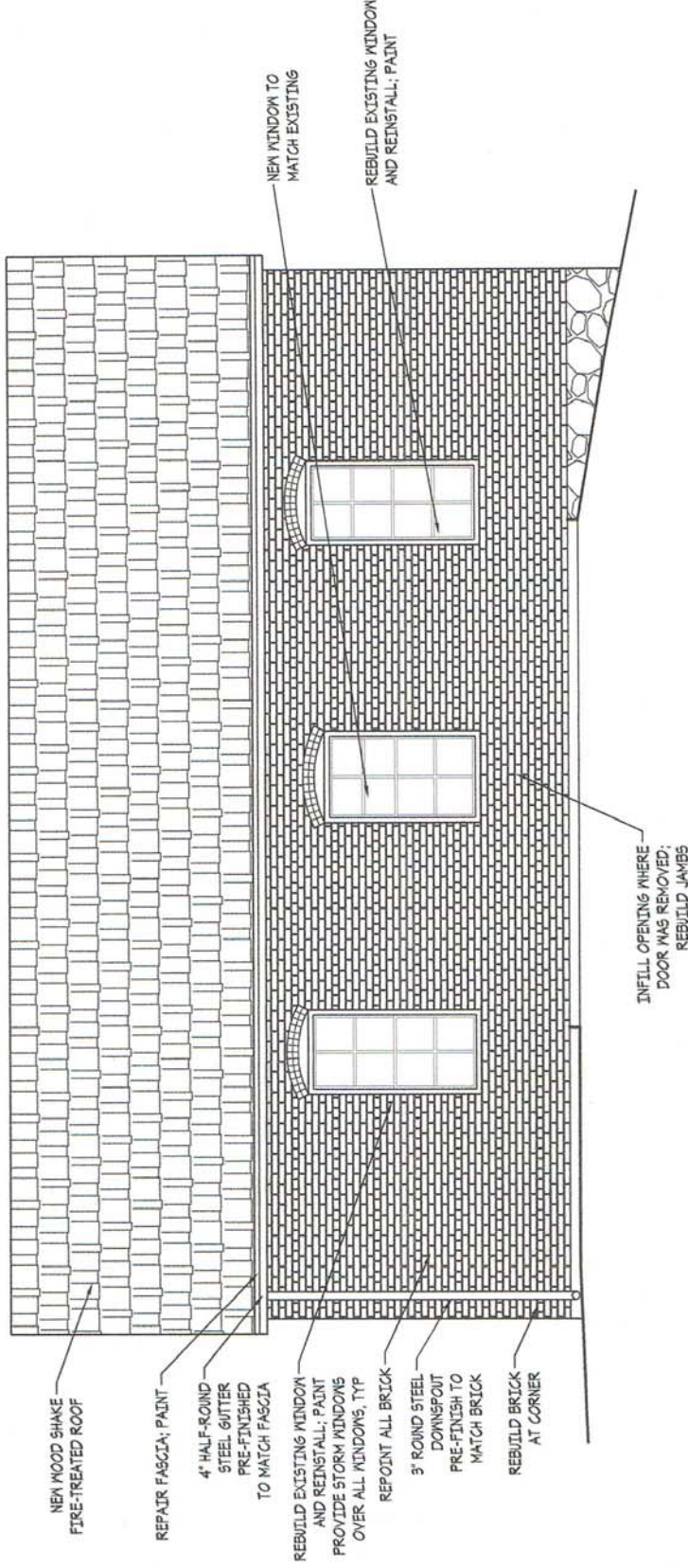
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION, JEFFRIS
HEARTLAND FUND

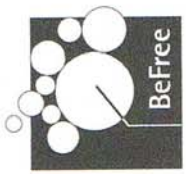
© 2010 BeFree Architecture LLC
APRIL 24, 2010

EXTERIOR
ELEVATIONS

A201



1 EAST ELEVATION
1/4\"/>



BeFree Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langerkamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNEKER SCHOOL RESTORATION

31 West 8th Street

for the

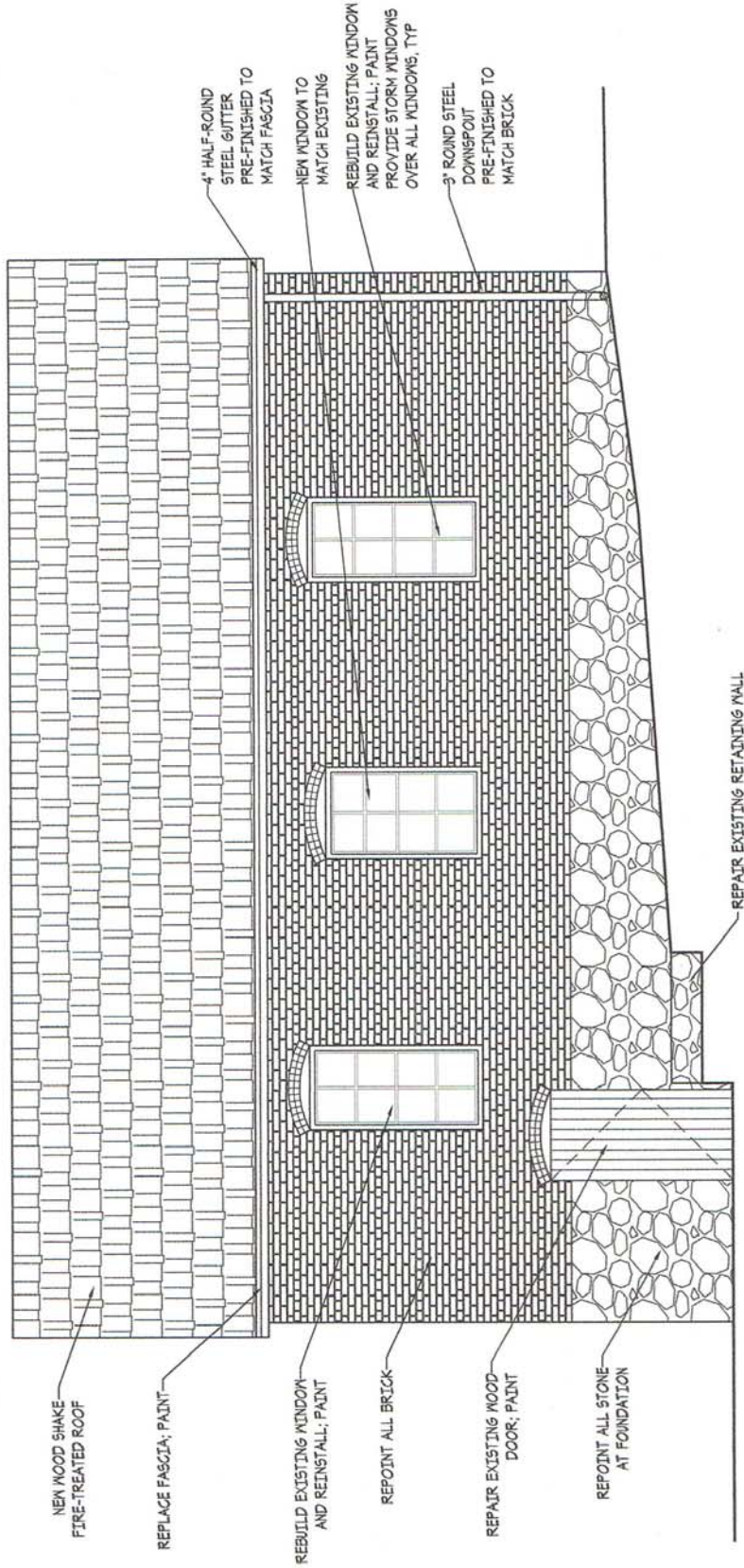
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

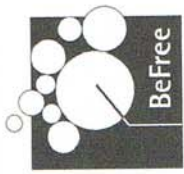
© 2010 BeFree Architecture LLC
APRIL 24, 2010

EXTERIOR ELEVATIONS

A202



1 WEST ELEVATION
1/4" = 1'-0"



BeFree
Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langankamp, AIA, LEED AP
Architect
Missouri License No. A-007962

BANNER SCHOOL
RESTORATION
31 West 8th Street

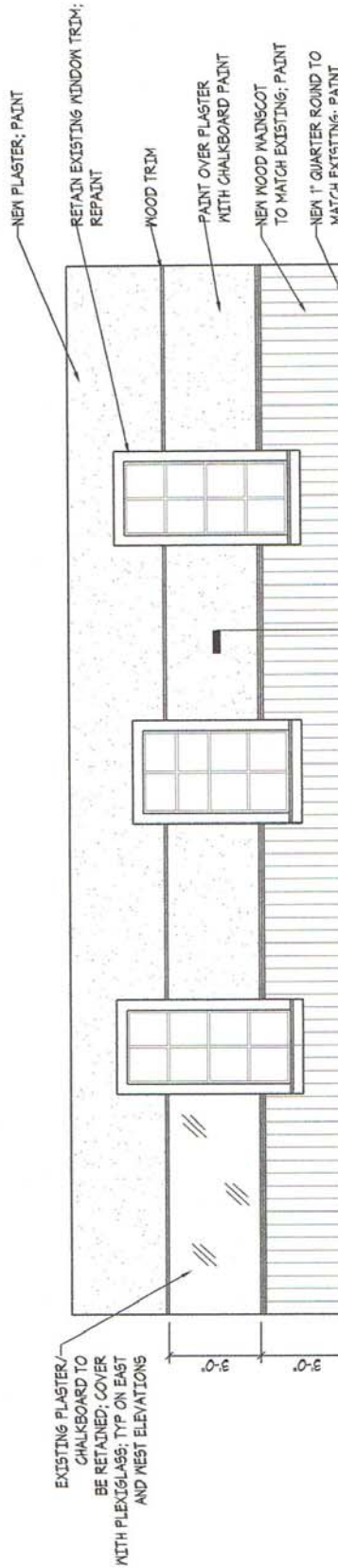
for the
BANNER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

© 2010 BeFree Architecture LLC
APRIL 24, 2010

INTERIOR
ELEVATIONS

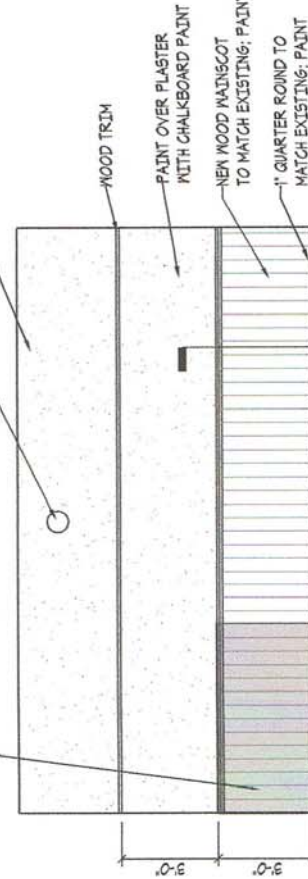
A210



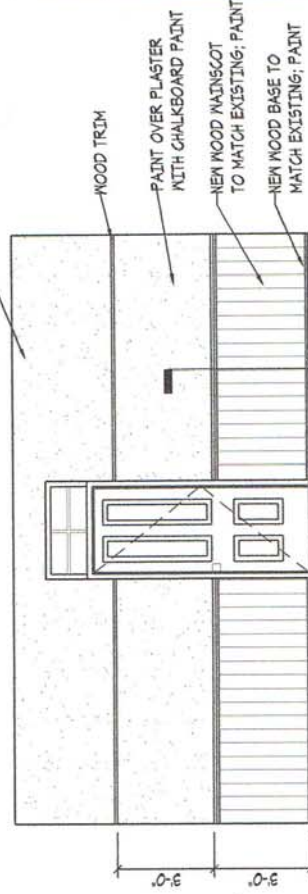
MAINTAIN EXISTING STOVE
PIPE OPENING

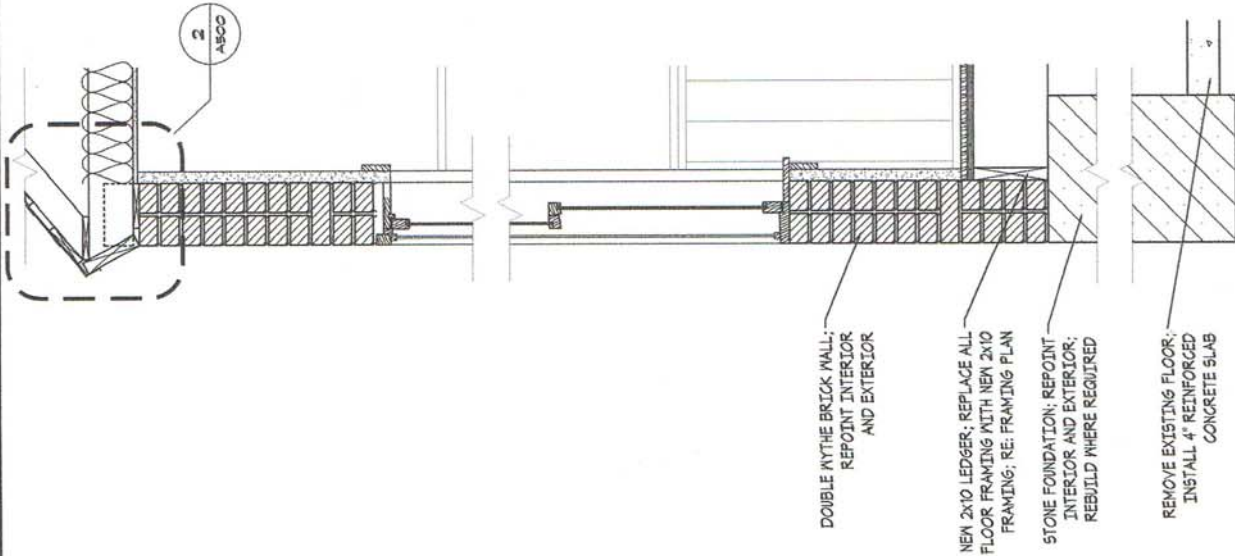
NEW PLASTER; PAINT

RETAIN EXISTING MAINSCOT;
REPAIRS AND REPAINT



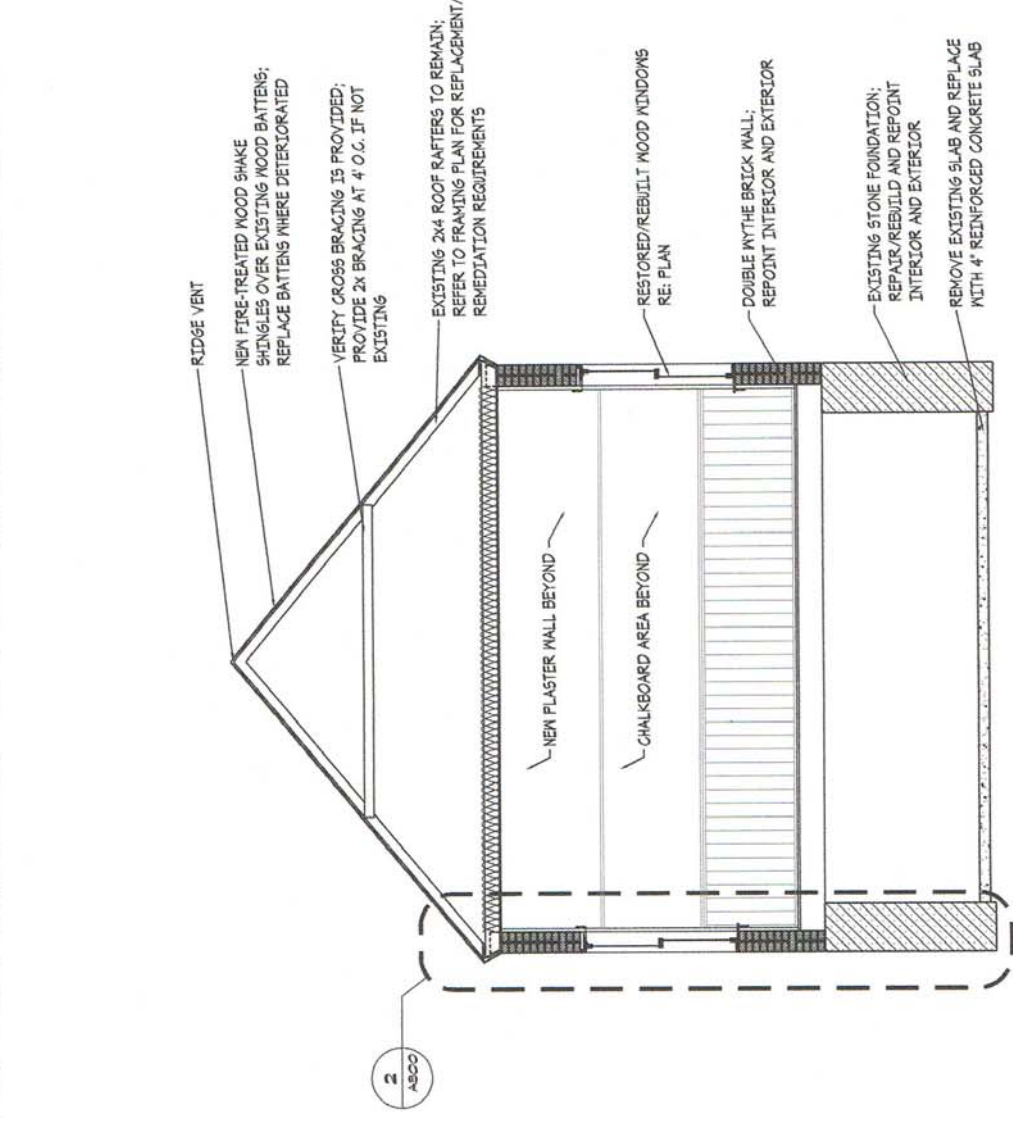
NEW PLASTER; PAINT





2 TYPICAL WALL SECTION
3/4" = 1'-0"

1 EAST-WEST BUILDING SECTION
1/4" = 1'-0"





BeFree
Architecture

BeFree Architecture LLC
10 West 59th Street
Kansas City, MO 64113
816.223.5207
www.befreearch.com

BeFree Architecture LLC
Missouri State Certificate of Authority
No. 2006012773

NOT FOR CONSTRUCTION

Rebecca Freese Langerkamp, AIA, LEED AP
Architect
Missouri License No. A-007562

BANNEKER SCHOOL
RESTORATION

31 West 8th Street

for the

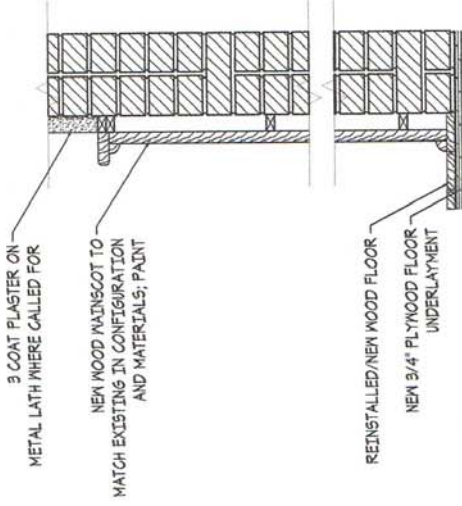
BANNEKER SCHOOL
FOUNDATION AND
HISTORIC SITE,
PARKVILLE, MO

with assistance from THE NATIONAL TRUST
FOR HISTORIC PRESERVATION JEFFRIS
HEARTLAND FUND

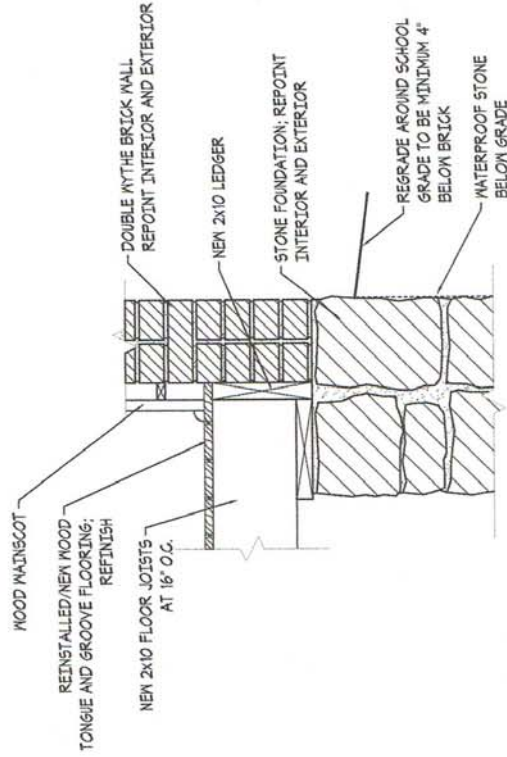
© 2010 BeFree Architecture LLC
APRIL 24, 2010

DETAILS

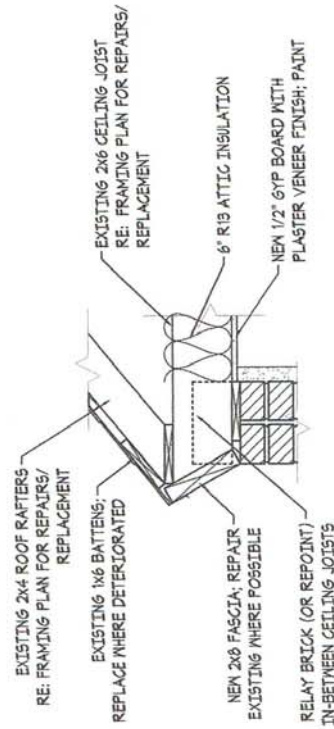
A500



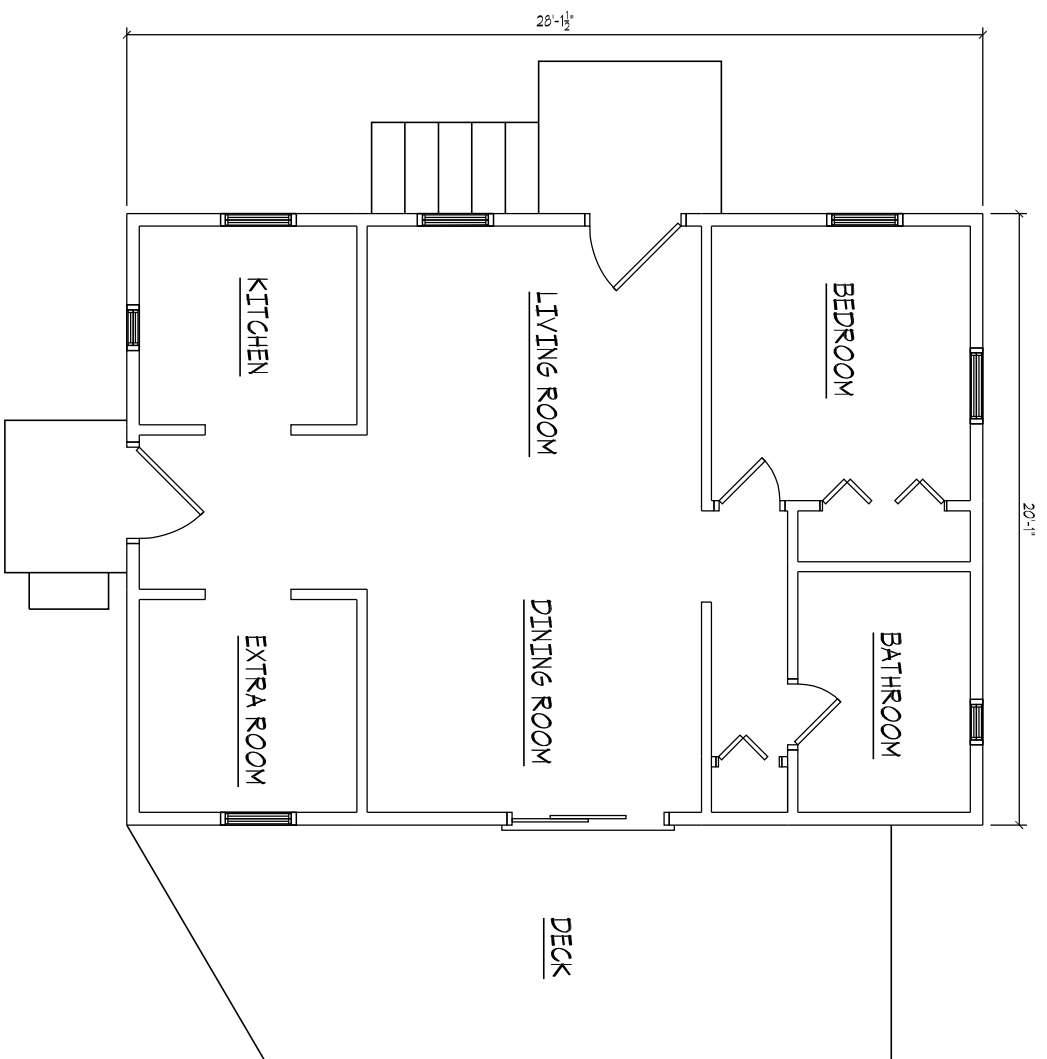
3 WAINSCOT DETAIL
1" = 1'-0"



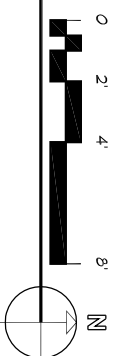
1 FLOOR DETAIL
1" = 1'-0"



2 ROOF DETAIL
1" = 1'-0"



INTERPRETIVE CENTER (703 WEST STREET) - EXISTING PLAN



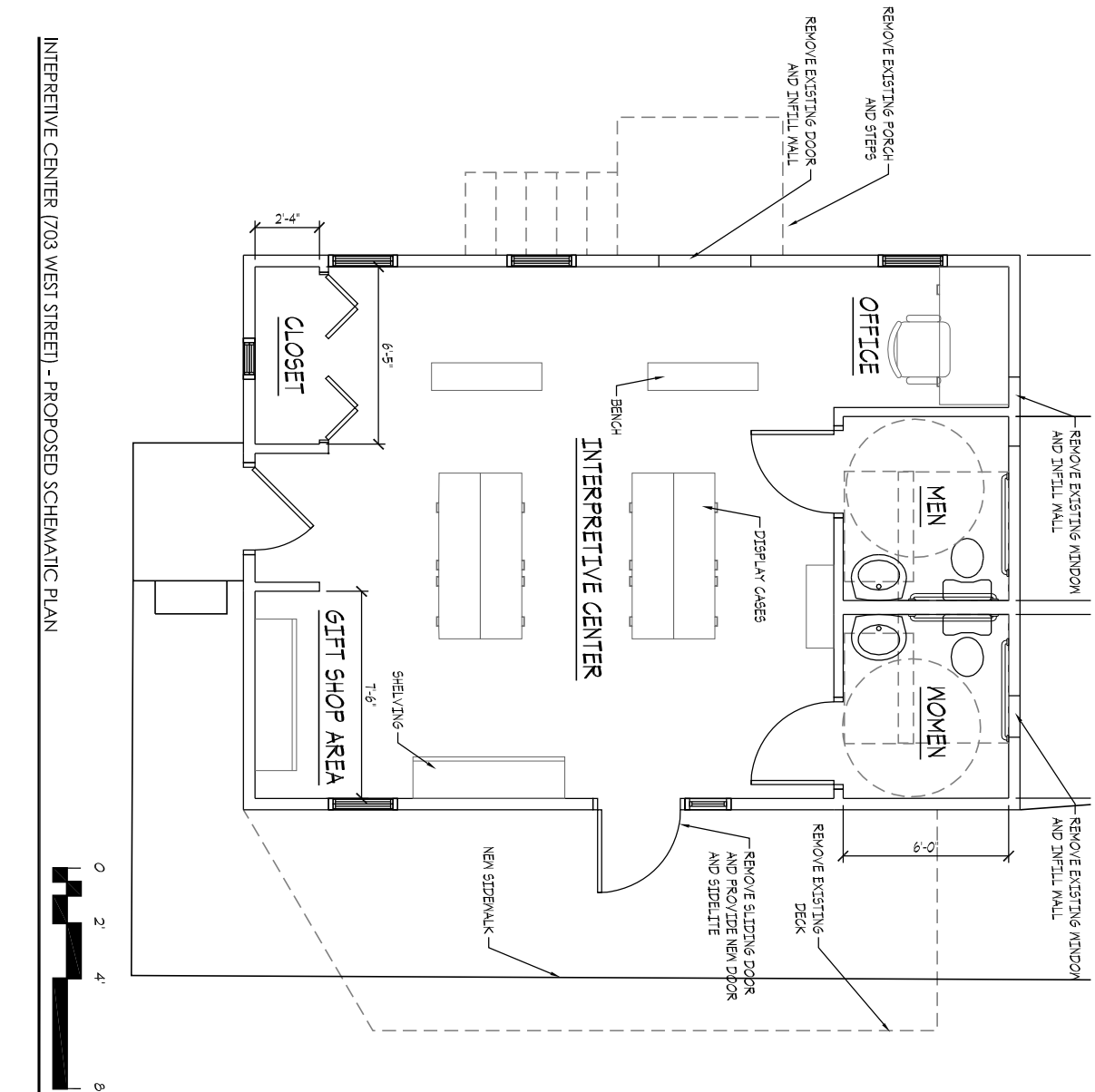
Architecture
 BeFree Architecture LLC
 10 West 59th Street
 Kansas City, MO 64113
 816.223.5207
www.befreearch.com

**BANNEKER SCHOOL
 RESTORATION
 and MASTER PLAN
 31 West 8th Street**

for the
**BANNEKER SCHOOL
 FOUNDATION AND
 HISTORIC SITE,
 PARKVILLE, MO**
 with assistance from THE NATIONAL TRUST
 FOR HISTORIC PRESERVATION JEFFRIS
 HEARTLAND FUND

APRIL 24, 2010

**INTERPRETIVE CENTER
 EXISTING**



INTERPRETIVE CENTER (703 WEST STREET) - PROPOSED SCHEMATIC PLAN



Architecture
 Befree Architecture LLC
 10 West 59th Street
 Kansas City, MO 64113
 816.223.5207
www.befreearch.com

**BANNEKER SCHOOL
 RESTORATION
 and MASTER PLAN
 31 West 8th Street**

for the
**BANNEKER SCHOOL
 FOUNDATION AND
 HISTORIC SITE,
 PARKVILLE, MO**
 with assistance from THE NATIONAL TRUST
 FOR HISTORIC PRESERVATION JEFFERIS
 HEARTLAND FUND

APRIL 24, 2010

**INTERPRETIVE CENTER -
 PROPOSED SCHEMATIC
 PLAN**



APPENDIX A



Statements of Probable Cost

The following Statements of Probable Cost have been prepared as an instrument to help the Foundation budget for implementing the Master Plan.

Description	Quantity	Unit	Cost/Unit	Subtotal		Notes
Selective Demolition						
Salvage existing finish wood floor	1	l.s.				in-kind donation
Remove floor joists	1	l.s.				in-kind donation
Remove remaining plaster and cementitious coating on west wall (interior)	1	l.s.				in-kind donation
Remove cementitious coating/misc wood on south exterior elevation	1	l.s.				in-kind donation
Remove shoring when safe to do so	1	l.s.				after new framing is installed
Stone Masonry						
Mortar Analysis	1	l.s.				
Excavate and backfill foundation wall	1	l.s.				ning exterior wall on 3 sides
Repair, rebuild and repoint mortar joints - interior	576	s.f.				
Repair, rebuild and repoint mortar joints - exterior	576	s.f.				
Waterproof exterior wall (below grade only)	371	s.f.				
Brick Masonry						
Mortar Analysis	1	l.s.				
Repair and repoint all brick - interior	1184	s.f.				
Repair and repoint all brick - exterior	1184	s.f.				
Breathable coating on exterior	1184	s.f.				
Framing						
Replace first floor framing	1	l.s.				22-2x10's 17'-0" long
Repair ceiling joist framing	1	l.s.				replace 10-2x6's 18'-0" long
Repair roof framing	1	l.s.				sister existing 2x4's (typ 20 locations)
Repair/replace fascia and eave	125	l.f.				
Roof						

BANNEKER SCHOOL RESTORATION

STATEMENT OF PROBABLE COST

April 24, 2010

Description	Quantity	Unit
New fire-treated wood-shake shingle roof	910	s.f.
Flashing	125	l.f.
Downspouts	21	l.f.
Gutters	70	l.f.
Windows and Doors		
Repair four original windows	4	ea
Build two new windows to match existing	2	ea
Six storm windows	6	ea
Repair one original entry door	1	ea
Repair one original basement door	1	ea
Repair or rebuild window trim	6	ea
Repair or rebuild door trim	2	ea
Install new transom above entry door	1	ea
New door hardware	2	ea
Insulation		
Attic insulation	545	s.f.
Interior Finishes		
Reinstall original wood flooring/refinish	372	s.f.
Install new wood flooring to match existing	173	s.f.
Reinstall original wood wainscot	18	s.f.
Install new wood wainscot	290	s.f.
New plaster walls above wainscot	541	s.f.
New gypsum board ceiling with plaster skim coat	545	s.f.
Paint Analysis (windows, wainscot, plaster)	1	l.s.
Painting - wainscot	308	s.f.
Painting - walls	541	s.f.
Painting - ceiling	545	s.f.
Electrical		

[illegible]

BANNEKER SCHOOL RESTORATION

STATEMENT OF PROBABLE COST

April 24, 2010

Description	Quantity	Unit	Cost/Unit	Subtotal		Notes
Install new 100 amp service (underground)	1	I.S.				panel in basement
Install four new interior light fixtures (main floor)	4	ea				
Install four new interior light fixtures (basement)	4	ea				
Install eight interior outlets	8	ea				4 outlets in basement, 4 in school
Install two exterior light fixtures	2	ea				
Install security panel in basement	1	I.S.				
Mechanical						
Install new furnace and air-conditioner	1	I.S.	\$			
General Conditions						
Dumpster, portable toilet, electrical service connection; etc.	1	I.S.	\$			5% of total cost
Subtotal						
Contingency (20%)						
					2	
General Notes:						
This estimate does not reflect hiring a general contractor and therefore does not reflect Superintendant costs, insurance, or bond costs.						
This estimate is based on current conditions known and may overlap work perviously performed that we are not aware of, most notably work done to the basement/foundation walls. Subsequently, it may not reflect work that was thought to have occurred, specifically the replacement of the basement concrete floor slab that may not have occurred.						

Description	Quantity	Unit	Cost/Unit	Subtotal		Notes
Restore Banneker School						
School Restoration	1	l.s.	\$216,689.00	\$216,689.00		refer to detailed estimate
				subtotal	\$216,689.00	
Acquisition of 703 West Street						
Property purchase	1	l.s.	\$80,000.00	\$80,000.00		
Miscellaneous purchase expenses	1	l.s.	\$2,000.00	\$2,000.00		
				subtotal	\$82,000.00	
Selective Site Demolition						
Remove steps and deck from Interpretive Center	1	l.s.	\$1,000.00	\$1,000.00		
Remove concrete steps and pad from School	1	l.s.	\$750.00	\$750.00		
Remove retaining wall at property line	1	l.s.	\$750.00	\$750.00		partial removal
Miscellaneous site clearing	1	l.s.	\$500.00	\$500.00		
				subtotal	\$3,000.00	
Interpretive Center						
Remodel existing residence	565	s.f.	\$60.00	\$33,900.00		
				subtotal	\$33,900.00	
Site Work						
Civil Engineering Services	1	l.s.	\$8,000.00	\$8,000.00		
Rough Grading	1	l.s.	\$50,000.00	\$50,000.00		
Flatwork (stairs and sidewalks)	1	l.s.	\$20,000.00	\$20,000.00		
Parking/Retaining Wall	1	l.s.	\$30,000.00	\$30,000.00		
Bus Drop Off	1	l.s.	\$20,000.00	\$20,000.00		
Wheelchair Lift	1	l.s.	\$15,000.00	\$15,000.00		
				subtotal	\$143,000.00	

Description	Quantity	Unit	Cost/Unit	Subtotal		Notes
Electrical						
Site Lighting	1	l.s.	\$2,000.00	\$2,000.00		
				subtotal	\$2,000.00	
Subtotal				\$480,589.00		
Contingency (20%)				\$96,117.80		
				TOTAL	\$576,706.80	

BANNEKER SCHOOL MASTER PLAN

APPENDIX B



National Trust for Historic Preservation Technical Briefs

The following Technical Briefs are critical to the successful restoration of the Banneker School and their recommendations must be enforced during the construction phase. All briefs can be accessed at <http://www.nps.gov/history/hps/tps/briefs>



Preservation Brief 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings

Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings

Preservation Brief 4: Roofing for Historic Buildings

Preservation Brief 9: The Repair of Historic Wooden Windows

Preservation Brief 16: The Use of Substitute Materials on Historic Building Exteriors

Preservation Brief 18: Rehabilitating Interiors in Historic Buildings
Identifying and Preserving Character-Defining Elements

Preservation Brief 21: Repairing Historic Flat Plaster Walls and Ceilings

Preservation Brief 24: Heating, Ventilating, and Cooling Historic Buildings; Problems and Recommended Approaches

Preservation Brief 28: Painting Historic Interiors

Preservation Brief 32: Making Historic Properties Accessible

BANNEKER SCHOOL MASTER PLAN

APPENDIX C

Secretary of the Interior's Standards for Restoration



Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

1. A property will be used as it was historically or be given a new use which reflects the property's restoration period.
2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and property documented for future research.
4. Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.
6. Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials.
7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.
8. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
9. Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
10. Designs that were never executed historically will not be constructed.