

HISTORIC PRESERVATION COMMISSION MEETING

CITY OF DAVENPORT, IOWA

TUESDAY, APRIL 13, 2021; 5:00 PM

CITY HALL, 226 W 4TH ST, COUNCIL CHAMBERS

A PARTIALLY ELECTRONIC MEETING IS BEING HELD BECAUSE A FULLY "IN PERSON" MEETING IS IMPRACTICAL DUE TO CONCERNS FOR THE HEALTH AND SAFETY OF COUNCIL MEMBERS, STAFF, AND THE PUBLIC PRESENTED BY COVID-19, AND TO FOLLOW THE GOVERNOR'S PROCLAMATION AND THE MAYOR'S EXECUTIVE ORDER DIRECTING SOCIAL DISTANCING AND PLACING RESTRICTIONS ON GATHERINGS. IN PERSON ATTENDANCE BY THE GENERAL PUBLIC AT ANY CITY OF DAVENPORT PUBLIC MEETING WITHIN ITS FACILITIES SHALL BE LIMITED TO 20 PERSONS.

I. Call to Order

II. Secretary's Report

- A. Consideration of the March 9, 2021 meeting minutes.

III. Communications

- A. Proclamation-Historic Preservation Month
- B. RES20-01: Resolution encouraging the consideration of desirability of preserving historic character when considering changes to Davenport's local landmark parks.

IV. Old Business

V. New Business

- A. Case COA21-03: Brick rebuild, tuckpointing, and caulking at 532 West 6th Street. The Hirschel, A.J. and H.O. Seiffert House is located in the Hamburg Local Landmark Historic District. Herold Jestel, petitioner. [Ward 3]
- B. COA21-04 being the request to install a new plaque adjacent to the military tank on Credit Island located at 2200 West River Drive. Timothy Ramsay, petitioner. [Ward 1]
- C. Case COA21-05: Installation of a new roof at 417 West 7th Street. The home is listed as a contributing structure in the Hamburg Local Landmark Historic District. Maria Klein of Green Valley Construction Inc. on behalf of Ryan Slattery, petitioner. [Ward 3]

VI. Other Business

VII. Open Forum for Comment

VIII. Adjourn

IX. Next Commission Meeting: May 11, 2021

City of Davenport
Historic Preservation Commission

Department: DNS
Contact Info: Matt Werderitch 563.888.2221

Date
4/13/2021

Subject:
Consideration of the March 9, 2021 meeting minutes.

Recommendation:
Approve the minutes.

Background:
The March 9, 2021 meeting minutes are attached.

ATTACHMENTS:

Type	Description
▢ Backup Material	Minutes 3-9-2021

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Werderitch, Matt	Approved	3/31/2021 - 9:38 AM

HISTORIC PRESERVATION COMMISSION MEETING MINUTES

CITY OF DAVENPORT, IOWA

TUESDAY, MARCH 9, 2021; 5:00 PM

CITY HALL, 226 W 4TH ST, COUNCIL CHAMBERS

A PARTIALLY ELECTRONIC MEETING IS BEING HELD BECAUSE A FULLY "IN PERSON" MEETING IS IMPRACTICAL DUE TO CONCERNS FOR THE HEALTH AND SAFETY OF COUNCIL MEMBERS, STAFF, AND THE PUBLIC PRESENTED BY COVID-19, AND TO FOLLOW THE GOVERNOR'S PROCLAMATION AND THE MAYOR'S EXECUTIVE ORDER DIRECTING SOCIAL DISTANCING AND PLACING RESTRICTIONS ON GATHERINGS. IN PERSON ATTENDANCE BY THE GENERAL PUBLIC AT ANY CITY OF DAVENPORT PUBLIC MEETING WITHIN ITS FACILITIES SHALL BE LIMITED TO 10 PERSONS.

I. Call to Order

Vice Chairperson McGivern called the meeting to order with the following Commissioners present by phone or virtual meeting: Franken, Lesthaeghe, McGivern, Miranda, Powers, Sage, and Wilga.

Staff present: Laura Berkley, Matt Werderitch

II. Secretary's Report

a. Consideration of the February 9, 2021 Meeting Minutes.

Motion by Franken, second by Lesthaeghe to approve the February 9, 2021 meeting minutes. Minutes were unanimously approved by voice vote (7-0).

III. Communications

The Historic Preservation Commission welcomed its seventh Commissioner Karen Miranda, whom filled the last remaining vacant seat on the Commission.

Werderitch announced that the WOC Broadcast Center at 805 Brady Street has been individually listed on the National Register of Historic Places.

Staff stated the Certified Local Government Annual Report has been submitted to the State Historic Preservation Office for review. Staff will notify the Commission when approved.

IV. Old Business

V. New Business

- a. Case COA21-02 being the request for new construction at City Hall located at 226 West 4th Street. Local Historic Landmark. Saloni Sheth, Streamline Architects on behalf of the City of Davenport, petitioner. [Ward 3]

Werderitch provided an overview of the proposed City Hall monument sign. Saloni Sheth, Streamline Architects, presented the conceptual design to the Commission and answered questions. Commissioner comments included the size of the stone veneer, location of the sign, size, illumination, and direction. Franken expressed a desire to have the date City Hall was constructed engraved onto the base of the monument sign.

Staff recommendation is made to approve the Certificate of Appropriateness for New Construction at 226 West 4th Street per Chapter 14.01.060 of the Zoning Ordinance.

The project was reviewed for conformance with the Standards for Review, Chapter 14.01.060.C and D. The project meets the following standards:

1. Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration.
2. Site improvements should have as minimal of an impact as possible to the designated property's original layout and its visual character.
3. The height of the proposed monument sign is compatible with the designated property and the surrounding structures.

Motion by Wilga, second by Miranda to approve staff recommendation for approval of Case COA21-02. Motion to approve staff recommendation passed by a roll call vote 6 to 1. Commissioner Franken voted against.

VI. Other Business

- a. Election of Officers.

Motion by Franken, second by Powers to nominate Bob McGivern as Chairperson. Motion passed unanimously by a roll call vote (7-0).

Motion by McGivern, second by Powers to nominate Diane Franken as Vice-Chairperson. Motion passed unanimously by a roll call vote (7-0).

VII. Open Forum for Comment

City engineering staff is reviewing feedback provided by the Commission at February's work session regarding reconstruction of the retaining wall at 510 West 6th Street. The Public Works Department is exploring the option of entering into a contract with IMEG to provide a report and preliminary plans comparing the possibility of preserving the existing limestone verses new construction. The condition of the limestone will also be studied. Staff reached out to the State Historic Preservation Office (SHPO) for feedback. SHPO expressed a preference in having the existing limestone preserved. This item will come back to the Commission at a later date for review and approval.

The Historic Preservation Commission expressed interest in having Alderperson Meginnis serve as a liaison. The liaison role will focus on sharing historic preservation information and resources with city staff and the commission. The role is not intended to provide technical comments on individual projects. As an alderperson, she will continue to advocate for historic preservation at the City Council level.

VIII. Adjourn

Motion by Miranda, second by Sage to adjourn the meeting. Motion passed by a voice vote (7-0). The meeting adjourned at 5:30 pm.

IX. Next Commission Meeting: April 13, 2021

City of Davenport
Historic Preservation Commission

Department: DNS
Contact Info: Matt Werderitch 563.888.2221

Date
4/13/2021

Subject:
Proclamation-Historic Preservation Month

Background:

May is traditionally Preservation Month across the United States. Many communities throughout the country adopt a proclamation celebrating preservation in the month of May. The City Council will be issuing a proclamation for May as Preservation Month at their meeting on the 12th.

Staff has been asked to include Davenport specific information within the proclamation. Below are some general ideas of topics to highlight:

- Celebrate a property that is recently listed on the National Register
- Celebrate someone in your community has completed a successful rehabilitation project
- Promote a project you're working on but haven't completed
- Give kudos to your historic preservation volunteers or advocates

Staff would also like to know if a Commissioner would like to accept the Proclamation at the City Council meeting.

ATTACHMENTS:

Type	Description
▣ Backup Material	Proclamation
▣ Backup Material	History of Historic Preservation Month

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Werderitch, Matt	Approved	4/9/2021 - 8:20 AM

The proclamation for the _____ Historic Preservation Month is:

“Whereas, historic preservation is an effective tool for managing growth and sustainable development, revitalizing neighborhoods, fostering local pride and maintaining community character while enhancing livability; and

Whereas, historic preservation is relevant for communities across the nation, both urban and rural, and for Americans of all ages, all walks of life and all ethnic backgrounds; and

Whereas, it is important to celebrate the role of history in our lives and the contributions made by dedicated individuals in helping to preserve the tangible aspects of the heritage that has shaped us as a people; and

Now, therefore I, _____, [mayor or chair of the Board of Supervisors], do proclaim May 2021 as National Preservation Month, and call upon the people of _____ to join their fellow citizens across the United States in recognizing and participating in this special observance.”



April 19, 2019

A Brief History of Preservation Month

More:

[We're Saving Places](#)

By:

National Trust for Historic Preservation

Every year in May, local preservation groups, state historical societies, and business and civic organizations across the country celebrate [Preservation Month](#) [Link: /preservation-month] through events that promote historic places and heritage tourism, and that demonstrate the social and economic benefits of historic preservation.

Preservation Month began as National Preservation Week in 1973. In 2005, the National Trust extended the celebration to the entire month of May and declared it Preservation Month to provide an even greater opportunity to celebrate the diverse and unique heritage of our country's cities and states.

History

The first National Preservation Week was celebrated on May 6-12, 1973. At the annual meeting on October 27, 1972, in Washington, D.C., Donald T. Sheehan, a member of the Trustees Advisory Committee on Membership & Public Relations, proposed the idea of the National Preservation Week as a "means of relating local and state preservation progress to the national effort for the mutual benefits of both." The National Trust chose the second week of May because it coincided with the organization's annual award luncheon, then in its third year.

A Joint Congressional Resolution was introduced on February 15, 1973, by Sen. Henry M. Jackson (D-Wash.), chairman of the Senate Interior and Insular Affairs Committee to designate the week of May 6-12, 1973, as National Preservation Week. President Richard Nixon signed the resolution into law on May 5, 1973.

First Lady Patricia Nixon, who presented the National Trust awards during the third annual Awards Luncheon in the [Decatur House Garden](#) [Link: /decatur-house] on May 8th, also read the Presidential proclamation:

“As the pace of change accelerates in the world around us, Americans more than ever need a lively awareness of our roots and origins in the past on which to base our sense of identity in the present and our directions for the future.”

Mayors and governors throughout the country have since added their proclamations to President Nixon's.

Donate Today to Help Save the Places Where Our History Happened.

Support the National Trust for Historic Preservation today and you'll be providing the courage, comfort, and inspiration of historic places now, when we need it most.

City of Davenport
Historic Preservation Commission

Department: DNS
Contact Info: Matt Werderitch 563.888.2221

Date
4/13/2021

Subject:
RES20-01: Resolution encouraging the consideration of desirability of preserving historic character when considering changes to Davenport's local landmark parks.

Recommendation:
Informational item.

ATTACHMENTS:

Type	Description
▣ Backup Material	Resolution 2020-01
▣ Backup Material	Parks and Recreation Advisory Board Correspondence

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Werderitch, Matt	Approved	4/13/2021 - 10:20 AM

Resolution No. 2020-01

Resolution offered by Commissioner Diane Franken

RESOLVED by the Davenport Historic Preservation Commission (HPC).

RESOLUTION encouraging the consideration of desirability of preserving historic character when considering changes to Davenport's local landmark parks.

NOW, THEREFORE, BE IT RESOLVED, by the Historic Preservation commission of the City of Davenport that when considering changes to any of Davenport's local landmark parks, whatever the type of those changes maybe, the Historic Preservation Commission recommends to the Parks & Recreation Department and its Advisory Board, those changes be taken with the consideration of the desirability of preserving the historic character of those parks.

Any changes within these local landmark parks, should be guided by the local, state, or national designation and its 'period of significance', taken from its original application for historical designation and refer to the National Park Service's Preservation Briefs to guide decisions in making changes to local landmark parks.

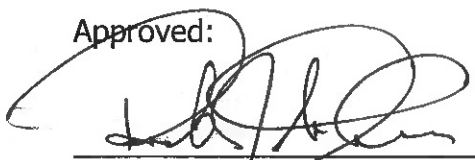
and the Chairperson and Secretary be, and they are hereby authorized and instructed to certify to the adoption of this resolution.

Attest:



~~Brandon Melton~~, HPC Secretary
matt wardenitch

Approved:



~~John Fruch~~, HPC Chairperson



3/18/2021

To: Historic Preservation Commission

From: Wendy Peterson, Park and Recreation Advisory Board Chair

Subject: Historic Preservation Commission's 2020-01 Resolution

On March 2, 2021 at the Parks and Recreation Advisory Board Meeting, members and Parks staff received a copy of the Historic Preservation Commission's 2020-01 Resolution recommendation that states: Any changes made to a historic park "should be guided by the local, state, or national designation and its 'period of significance', taken from its original application for historical designation and refer to the National Park Service's Preservation Briefs to guide decisions in making changes to local landmark parks."

During this meeting the Advisory Board motioned to "Acknowledge the receipt of the resolution". After a short discussion the motioned passed unanimously, 8-0.

Future projects taking place in historic parks and facilities will take into account, both the 2020-01 resolution and the 2005 Historic Preservation Review Agreement between the Historic Preservation Commission and Davenport Parks and Recreation Department, prior to finalizing said project under consideration.

Thank you,

Wendy Peterson

Park and Recreation Advisory Board Chair

City of Davenport
Historic Preservation Commission

Department: DNS
Contact Info: Matt Werderitch 563.888.2221

Date
4/13/2021

Subject:

Case COA21-03: Brick rebuild, tuckpointing, and caulking at 532 West 6th Street. The Hirschel, A.J. and H.O. Seiffert House is located in the Hamburg Local Landmark Historic District. Herold Jestel, petitioner. [Ward 3]

Recommendation:

A recommendation is made to approve the Certificate of Appropriateness to rebuild, tuckpoint, and caulk brick at 532 West 6th Street, subject to the following condition:

Condition: The existing brick on the south elevation shall be preserved, cleaned, and reused. If the brick on the south elevation wall is to be removed and replaced with new brick, then sample replacement brick shall be reviewed and approved by the Historic Preservation Commission.

The project was reviewed for conformance with the Standards for Review, Chapter 14.01.060C of the Davenport Municipal Code. The project meets the following standards:

- Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration.
- Deteriorated architectural features should, where possible, be repaired rather than replaced. Where the severity of deterioration requires replacement, the new feature shall match the old in design, color, texture and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical or pictorial evidence.
- Activities that cause deterioration of a designated property and its architectural features shall be discouraged. In those cases where the damage would be irreversible, such as sand-blasting and wet blasting fire-hardened bricks, the activities shall be prohibited. If cleaning is to be done, the gentlest means possible shall be encouraged.

Background:

The Historic Preservation Commission approved a Certificate of Appropriateness for tuckpointing all brick and mortar joints on the chimney at 532 West 6th Street on May 12, 2020. Based on the scope of the work and experience from the contractor, B&B Masonry and Restoration, N spec mortar was approved for use in place of a custom mix determined by material testing.

The applicant is returning one year later for a Certificate of Appropriateness to perform the following exterior work:

1. Brick Rebuild South Elevation: Approximately 9 square feet of brick at the south elevation of the home is pushing outwards. The proposal is to demolish the brick and relay new brick; if available. If new brick cannot be found, then the existing brick will be cleaned and reused. Once the brick is laid and mortar has cures, the smears will be cleaned using Prosoco's 600 Detergent Cleaner.

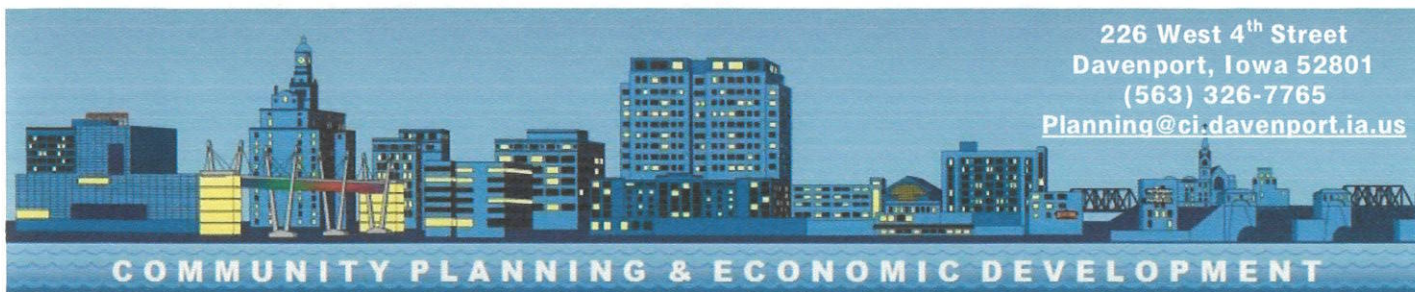
2. Tuckpointing: The interior and exterior brick mortar joints on the short walls of the porch are to be tuckpointed. Miscellaneous spot pointing on the lower elevations of the home are also included. Type N Spec Mix-Pre-Mixed Bag Mortar will be used. The color will match the existing as close as possible. Included in the proposal is 150 square feet.
3. Caulking: Porch area capstones and brick control joints to be caulked using Sikas 15 LM Urethane Sealant. The color will match the surrounding surfaces as close as possible.

ATTACHMENTS:

Type	Description
▢ Backup Material	Application
▢ Backup Material	Background Material
▢ Backup Material	Approval Standards
▢ Backup Material	Meeting Minutes 5-12-2020
▢ Backup Material	Site Inventory Form
▢ Backup Material	Preservation Brief: Repointing Masonry

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Werderitch, Matt	Approved	4/8/2021 - 1:08 PM



226 West 4th Street
Davenport, Iowa 52801
(563) 326-7765
Planning@ci.davenport.ia.us

Complete application can be emailed to planning@ci.davenport.ia.us

Property Address* 532 W. 6th Street

*If no property address, please submit a legal description of the property.

Applicant (Primary Contact)

Name: Harold Jester
Company: _____
Address: 532 W. 6th St.
City/State/Zip: Davenport, IA 52803
Phone: 563-370-6511
Email: hjestel@gmail.com

Owner (if different from Applicant)

Name: SAME AS ABOVE
Company: _____
Address: _____
City/State/Zip: _____
Phone: _____
Email: _____

Engineer (if applicable)

Name: _____
Company: _____
Address: _____
City/State/Zip: _____
Phone: _____
Email: _____

Architect (if applicable)

Name: _____
Company: _____
Address: _____
City/State/Zip: _____
Phone: _____
Email: _____

Attorney (if applicable)

Name: _____
Company: _____
Address: _____
City/State/Zip: _____
Phone: _____
Email: _____

Application Form Type:

Plan and Zoning Commission

- Zoning Map Amendment (Rezoning) ☐
Planned Unit Development ☐
Zoning Ordinance Text Amendment ☐
Right-of-way or Easement Vacation ☐
Voluntary Annexation ☐

Zoning Board of Adjustment

- Zoning Appeal ☐
Special Use ☐
Hardship Variance ☐

Design Review Board

- Design Approval ☐
Demolition Request in the Downtown ☐
Demolition Request in the Village of East Davenport ☐

Historic Preservation Commission

- Certificate of Appropriateness ☒
Landmark Nomination ☐
Demolition Request ☐

Administrative

- Administrative Exception ☐
Health Services and Congregate ☐
Living Permit ☐

Historic Resource:

- ☒ Local Hamburg Historic District
- ☐ Iowa Soldier's Orphans' Historic District
- ☐ Marycrest College Historic District
- ☐ Individually Listed Local Historic Landmark

Not sure if you have a Historic Resource? You can click [here](#) to access the City's GIS Map. Click the layers icon toward the top right of the page. Click the Planning Layers dropdown. Turn the Historic Resources layer on by checking the box.

Historic Resources requiring a Certificate of Appropriateness are mapped with a  or .

If you are unsure, please contact the Community Planning and Economic Development staff at (563) 326-7765 or planning@ci.davenport.ia.us and we can help you.

When is a certificate of appropriateness required?

Prior to the commencement of the work.

What type of activity requires the approval of a certificate of appropriateness?

Any activity requiring a building or sign permit, except demolition, that would change the exterior architectural appearance of a structure. Examples include new construction, exterior alterations, relocations, reconstructions and infill development.

Submittal requirements

- Please contact Planning staff at (563) 326-7765 or planning@ci.davenport.ia.us so we can help you determine what exactly is required to be submitted.
- Incomplete applications will not be accepted.

Submittal requirements for all types of requests:

- The completed application form.
- A work plan that accurately and completely describes the work to be done.
- Color digital photographs depicting the building elevations and proposed construction.

Submittal requirements for specific types of requests:

Minor alterations to existing buildings and new and replacement signs (all of the above and):

- Specifications, including dimensions, material used and color of the material.
- A rendering of the proposed alteration as depicted on the existing building.
- Samples of the materials, including the color, along with scaled, accurately colored elevations for any proposed sign and/or sign package.

Minor additions, site improvements and outdoor storage areas (all of the above and):

- A dimensioned site plan, including the locations of any proposed or existing buildings on the subject parcel and on surrounding parcels.
- A preliminary grading plan showing before and after grades at two-foot contour intervals, where deemed necessary by the development official.
- Outdoor storage areas shall be reflected in the elevation drawings submitted and shall show their relationship to the building elevations as well as the materials and treatment proposed that would accurately reflect the screening of the storage areas.
- A landscape plan.

Major additions and new buildings (all of the above and):

- Reproductions of building or site information found in the historical surveys if applicable
- A verifiable legal description, or a land survey.
- A map showing the existing topography of other properties at two-foot contour intervals, extending one hundred feet from the subject parcel.
- Elevation drawings, in color and drawn to scale, of the front, sides, rear, and roof lines of all proposed buildings or structures, illustrating the appearance and treatment of required screening elements for roof-mounted equipment, where deemed necessary by the development official.
- A materials board containing samples of each type of exterior building materials.

Formal Procedure

(1) Application:

- Prior to submission of the application, the applicant shall correspond with Planning staff to discuss the request, potential alternatives and the process.
- The submission of the application does not constitute official acceptance by the City of Davenport. Planning staff will review the application for completeness and notify the applicant that the application has been accepted or additional information is required. Inaccurate or incomplete applications may result in delay of required public meetings.

(2) Historic Preservation consideration of the request:

- Only work described in the application may be approved by the Commission.
- If the Commission determines there is insufficient information to make a proper judgment on the application, it may continue the application as long a period of 60 days has not elapsed from an accepted application. This time period does not apply if the applicant requests the continuance.

(3) After the Historic Preservation Commission's decision:

- If approved, a certificate of appropriateness does not constitute a City permit or license and does vest against any other land development regulation or regulatory approval. You will need to contact Davenport Public Works and other regulatory agencies regarding permits and/or licenses.
- If approved, a certificate of appropriateness will expire one year from the date of approval unless a building permit is obtained within such period. The Zoning Administrator may grant an extension for a period of validity longer than one year. An applicant may apply in writing for an extension of time at any time prior to the date of expiration.
- The applicant may appeal the Historic Preservation Commission's determination to the City Council. A written appeal along with payment of \$75.00 must be submitted to the Zoning Administrator within thirty calendar days of the Historic Preservation Commission's decision.

Applicant: Harold Jester

Date: 24 MAR 2021

By typing your name, you acknowledge and agree to the aforementioned submittal requirements and formal procedure and that you must be present at scheduled meetings.

Received by: Matt Warderitch
Planning staff

Date: 3-26-21

Date of the Public Meeting: 4-13-21

Meetings are held in City Hall Council Chambers located at 226 West 4th Street, Davenport, Iowa.

Work Plan

Please describe the work being performed. Please note that only work described in the application may be approved by the Board.

Add additional pages in needed.

REVISED PROPOSAL 2021

B&B Masonry and Restoration

2728 North Clark Street
Davenport, IA 52804
(563) 388-6792 Fax (563) 391-3405
mike.krueger@bbmsnry.com
Cell Phone: 309-373-4269

Page 1 of 2

DATE: February 3rd. 2021

CONTRACTOR: General Contractor

ATTN: Harold Jestel

JOB NAME: Harold Jestel Residence

JOB LOCATION: 532 West 6th Street, Davenport, Iowa

SCOPES OF WORK

BASE BID:

We propose to provide all materials, equipment, supervision and labor for the following work items:

- **Brick Rebuild SOUTH:** At the south elevation of the house where brick are starting to push outwards, we will demolish these brick and then relay in new brick; if available. If new brick cannot be found, we will clean and re-use the existing brick. Once brick is laid and mortar has cures we will clean off the smears using Prosoco's 600 Detergent Cleaner. Included in the rebuild area is approximately 9 square feet.
- **Total Bid Brick Rebuild:** Two Thousand, Eight-Hundred and Two Dollars (\$2,802.00)
- **Tuckpointing:** Included in our proposal is tuckpointing all of the brick mortar joints on short walls of the porch area both inside and outside. At the lowest point allowed on the interior side of the porch we will leave a head joint open to the exterior every 2 ft. on center to allow for water drainage. Also included is miscellaneous spot pointing around the lower elevations of the home and the lower wall on the southwest of the home. Joints will be ground out to a minimum depth of $\frac{3}{4}$ "; more if needed to reach solid mortar backing. Once grinding is complete, joints will be rinsed clean. Joints will be slightly dampened before tuckpointing to ensure a proper tuckpointing mortar bond. We propose to use Type "N" Spec Mix Pre-Mixed Bag Mortar; color to match existing as close as possible. Newly tuckpointed joints will be struck slightly concave to match existing surrounding joints. Included in our proposal is 150 square feet.

- **Caulking:** Included in our proposal is caulking all of the porch area capstones and caulking all of the brick control joints. Joints will be caulked using Sikas 15 LM Urethane Sealant; color to match surrounding surfaces as close as possible.
- **Total Bid Tuckpointing/Caulking:** Six Thousand, One-Hundred and Ninety-One Dollars (\$6191.00)
- **Total Combined Bid:** Eight Thousand, Nine-Hundred and Ninety-Three Dollars (\$8,993.00)

Notes:

- We are fully licensed, bonded, and insured and we guarantee the quality of our work.
- Water and electricity to be provided by owner.
- Because of current OSHA regulations pertaining to air borne dust containment and collection we will use dustless tools when grinding or cutting masonry elements.
- References supplied upon request.
- Sales tax will be added as applicable.

Exclusions:

1. Overtime hours
2. No work will be performed beyond our specified scope of work without consent and/or approval from building representatives/owners.
3. Interior work

PROPOSED BY: Michael L. Krueger DATE: 9/4/2021
 Michael L. Krueger
 Estimator and Project Manager

ACCEPTED BY: _____ DATE: _____
 By:
 Title:

PAYMENT TERMS: Payment terms are net in 30 days with 1.5% monthly interest applied to any outstanding balances.

PROPOSAL VALID: 30 DAYS

Hirschel, A.J. and H.O. Seiffert House

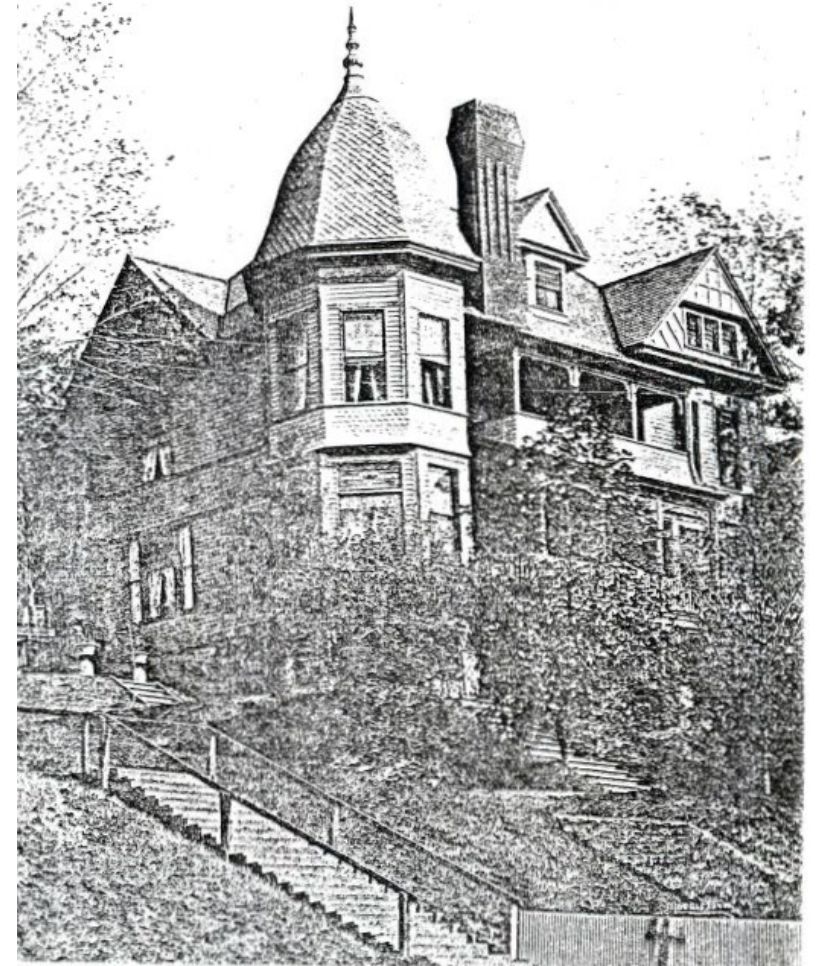
- Constructed Circa 1890
- Queen Anne Architectural Style
- Original Use: Single Family Home
- 3 ½ Story Structure
- Note: 2 Story Brick Porch is Not Original (C. 1920)



West Elevation



South Elevation



Original Construction

Background

Tuckpointing: the process of removing deteriorated mortar from the joints of a masonry wall and replacing it with new mortar.

- Properly done, repointing restores the visual and physical integrity of the masonry.
- Improperly done, repointing not only detracts from the appearance of the building, but may also cause physical damage to the masonry units themselves.



Project Scope

- **Brick Rebuild South Elevation:** Approximately 9 square feet of brick at the south elevation of the home is pushing outwards. The proposal is to demolish the brick and relay new brick; if available. If new brick cannot be found, then the existing brick will be cleaned and reused. Once the brick is laid and mortar has cures, the smears will be cleaned using Prosoco's 600 Detergent Cleaner.
- **Tuckpointing:** The interior and exterior brick mortar joints on the short walls of the porch are to be tuckpointed. Miscellaneous spot pointing on the lower elevations of the home are also included. Type N Spec Mix-Pre-Mixed Bag Mortar will be used. The color will match the existing as close as possible. Included in the proposal is 150 square feet.
- **Caulking:** Porch area capstones and brick control joints to be caulked using Sikas 15 LM Urethane Sealant. The color will match the surrounding surfaces as close as possible.



Caulking & Tuckpointing

DAVENPORT
IOWA | USA



Tuckpointing

DAVENPORT
IOWA | USA



Historic Preservation Ordinance

Section 14.01.060 Certificate of Appropriateness Review Process

C. Commission review process - Standards for review. In considering an application for a certificate of appropriateness, the commission shall be guided by the following general standards in addition to any other standards or guidelines established by ordinance for a local landmark or historic district. In all cases, these standards are to be applied in a reasonable manner, taking into full consideration the issue of economic feasibility and other technical considerations.

1. Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration; and
2. The removal, alteration or concealing of distinguishing exterior architectural features and historic material of a designated property should be avoided when possible; and
3. All designated property shall be recognized as a product and physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural architectural features shall be discouraged; and
4. Most properties change over time, and those changes that have acquired architectural and/or historical significance in their own right shall be recognized, respected and retained; and
5. Distinctive architectural features, construction techniques and/or examples of craftsmanship that characterize a designated property shall be treated with due consideration; and
6. Deteriorated architectural features should, where possible, be repaired rather than replaced. Where the severity of deterioration requires replacement, the new feature shall match the old in design, color, texture and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical or pictorial evidence; and
7. Activities that cause deterioration of a designated property and its architectural features shall be discouraged. In those cases where the damage would be irreversible, such as sand-blasting and wet blasting fire-hardened bricks, the activities shall be prohibited. If cleaning is to be done, the gentlest means possible shall be encouraged; and
8. Known significant archeological resources possibly affected by a proposed activity shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken; and
9. New additions and related new construction shall not be discouraged when such improvements do not destroy historic material and such design is compatible with the size, massing, scale, color, materials and character of the property, neighborhood and district, if applicable.

HISTORIC PRESERVATION COMMISSION MEETING MINUTES
CITY OF DAVENPORT, IOWA
TUESDAY, May 12, 2020; 5:00 PM
VIRTUAL MEETING
DAVENPORT, IOWA 52801

I. Call to Order

Chairman Frueh called the meeting to order with the following Commissioners present by phone or virtual meeting: Cordes, Franken, Powers, Wonio

II. Secretary's Report

A. Consideration of the March 10, 2020 meeting minutes.

Motion by Cordes, second by Wonio to approve the March 10, 2020 meeting minutes. Minutes were unanimously approved by voice vote (5-0)

III. Communications

Melton noted that the 2020 Preserve Iowa Summit would be held in a virtual format this year. Melton indicated he would share information for the Summit as it became available

IV. Old Business. There was none.

V. New Business

Case No: COA20-02: Tear off roof and install new at 723 Brown Street. The Paul C.A.F. and Emilie V. (Krause) Karlowa House is located in the Local Historic Hamburg District. Craig Canfield, petitioner. [Ward 3]

Findings:

1. Pursuant to the Section 14.01.060.C.1 of the Davenport City Code, Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration; and
2. The proposed cedar shingles would be fitting to the period of significance for the property.

Motion by Wonio, second by Powers to approve COA20-02 in accordance with submitted material. Motion to approve was unanimous by roll call vote (5-0).

Case No: COA20-03: Tear off roof and install new at 1800 W 12th (Abundant Life Ranchers). The structure is located in Fejervary Park which is designated both locally and nationally as historic. Jason Sedlock of

Sedlock Construction, petitioner. [Ward 4]

Findings:

1. Pursuant to the Section 14.01.060.C.1 of the Davenport City Code, Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration; and
2. The proposed replacement of the roof with similar materials would meet the requirements outlined in Section 14.01.060.C.1

Motion by Franken, seconded by Cordes to approve COA20-03 in accordance with submitted material. Motion to approve was unanimous by roll call vote (5-0).

Case No: COA20-04: Tuckpointing on all brick and mortar joints on the chimney at 532 W 6th. The Hirschel, A.J. and H.O. Seiffert House is located in the Local Historic Hamburg District. Herold Jestel, petitioner. [Ward 3]

1. Pursuant to the Section 14.01.060.C.1 of the Davenport City Code, Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration; and
2. The proposed tuck-pointing on the chimney would meet the requirements outlined in Section 14.01.060.C.1; and
3. Based on the scope of the work and experience from the contractor, N spec mortar is approved for use in place of a custom mix determined by material testing.

VI. Other Business.

VII. Open Forum for Comment. No comments.

VIII. Adjourn. The meeting was adjourned at approximately 5:30 pm.

Site Inventory Form

State Historical Society of Iowa

7/19/2005 Printed from Database

Inventory #: **82-00550**

Opinion

Opinion of Eligibility

Contributing in District

Contributing in Potential District

Opinion of Eligibility

Listed on NRHP

Source - Year

Consultant-1974

SNRC-1982

Consultant-1982

Consultant-1982

NPS-1983

Criteria Considerations

A B C D A B C D E F G

Y N Y N N N N N N N

Y N Y N N N N N N N

Y N Y N N N N N N N

Y N Y N N N N N N N

Y N Y N N N N N N N

In District: **82 - 00027 Hamburg Historic District**

Review & Compliance #:

1. Name of Property

NRHP Listed: **11/18/1983**

Non-Extant: **No**

Non-Extant Year:

historic name: **Hirschel, A. J. and H. O. Seiffert House**

other names: **82-010-279**

82-10-6-W532

Seiffert House

2. Location

street & number: **532 W 6th St**

City: **Davenport**

Vicinity: **No**

County: **Scott**

Legal Description: (If Rural)

(If Urban)

Subdivision: **Original Town**

Block: **35**

Lot: **1**

5. Classification

Category of Property:

Number of Resources within Property

Building(s)

Contributing: Non-Contributing:

1

0

Buildings

0

0

Sites

0

0

Structures

0

0

Objects

1

0

Total

Name of related survey or MPS

HADB: **82 - 004 Bowers, Martha H., 1982 - Historical and Architectural Resources of Davenport, Iowa**

HADB: **82 - 011 Planning Division: Community Development Department, 1986 - Historic Preservation Chapter: Davenport Comprehensive Plan**

HADB: **82 - 012 Tandarich, John, 1974 - The Davenport Proposed Expressway System: Phase I (Preliminary) Historic-Architectural and Historic Site Survey**

HADB: **82 - 013 Bowers, Martha H., 1984 - Davenport Architecture: Tradition and Transition**

HADB: **82 - 014 Svendsen, Marlys A., 1982 - Davenport: Where the Mississippi Runs West. A Survey of Davenport History and Architecture**

HADB: **82 - 015 Svendsen, Marlys A., 1980 - Davenport Historical Survey Report (Draft of Davenport: Where the Mississippi Runs West)**

HADB: **82 - 016 Anderson, Mrs. Ferrel, 1974 - Stubb's Eddy and the Village of East Davenport**

HADB: **82 - 018 Soike, Lowell J., 1989 - Historic Resources of Davenport, Iowa**

6. Function or Use

Historic Functions

DOMESTIC/single dwelling/residence

Current Functions

DOMESTIC/single dwelling/residence

7. Description

Architectural Classification

Late Victorian: Queen Anne

Materials

Foundation: **Brick**

Walls: **Wood**

Roof: **Asphalt**

Other:

8. Statement of Significance

Applicable National Register Criteria

Y A: Significant Events

N B: Significant Persons

Y C: Architectural Characteristics

N D: Archaeology

(Y=Yes N=No M=More Research Recommended)

Criteria Considerations

N A: Religious Institution

N B: Moved

N C: Birthplace or Grave

N D: Cemetery

N E: Reconstructed

N F: Commemorative Property

N G: Less than 50 Years of Age

Area of Significance

Social History

Architecture

Significant Dates

Construction Year:

1890

☒ Circa

Other Dates:

Significant Person:

Architect:

Builder

10. Geographic Data

UTM References:

15-701820-4599750 NAD27

Photo/Slide:	Roll/Sheet#	Frame Slot	Year:	Photo/Slide:	Roll/Sheet#	Frame Slot	Year:
<u>P</u>	<u>1616</u>	<u>3</u>	<u>1981</u>	<u>P</u>	<u>1623</u>	<u>10-11</u>	<u>1981</u>

This house is a significant remaining example of the Queen Anne Style. Despite the visually intrusive brick porch, it retains all of its architecturally significant features except for the original frame porch.

This house was erected in c. 1890 for A. J. Hirschel and his wife Charlotte. A different house was on this site when the Hirschel's acquired the property in 1885 than when they sold it in 1892 to H. O. Seiffert. Hirschel was attorney with the firm Hinz and Hirschel and was probably part of the local Hungarian community. H. O. Seiffert was an important local lumber magnet, serving as president of "Seiffert and Weis Lumber Company" at the time he acquired the house. The house is more commonly known by its second owner due to the nearly 50 year occupancy by the Seiffert family. - Bowers and Svendsen 1981

82-010-279
Hamburg Historic District
National Register 11/18/83

ARCHITECTURAL/HISTORICAL SURVEY

DAVENPORT, IOWA

The Architects Office

Wehner, Nowysz, Pottschiull and Pfiffner
801 day building Iowa city, Iowa 52240DAVENPORT COMMUNITY DEVELOPMENT DEPARTMENT
IOWA DIVISION OF HISTORIC PRESERVATION

SITE #82-10- 6-W532 MAP # 3

HIST. DIST. Hamburg

NAME A.J. Hirschel-H.O. Seiffert House

(H) C

ADDRESS 532 W. 6th Street

LEGAL DES. Original Town

35

1

SUB-DIVISION

BLOCK

PARCEL

SUB-PARCEL

UTM 15 17011820145091750 ACREAGE -1 ZONE R-6M

EASTING

NORTHING

OWNER

James C. Holland

532 W. 6th St., Davenport, IA 52803

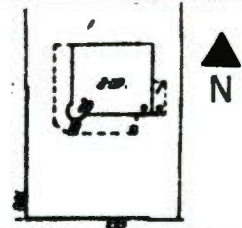
Jesse G. Pilcher

708 Marquette

Davenport, Iowa



SITE SHEET



DESCRIPTION

FORM 3/3½ story rectangular hipped roof with tower & gables CONST. DATE C. 1890

MATERIALS Wood (clapboard and shingles) ARCH. STYLE Queen Anne

FENESTRATION Variety of rectangular openings

DIST. FEATURES Octagonal corner tower, corbeled chimney & decorative cables

ALTERATIONS 2 story brick porch (C. 1920)

SITE & RELATED STR. 3 ft. high dressed stone retaining wall at street

STATEMENT

The house is a significant remaining example of the Queen Anne Style. Despite the visually intrusive brick porch, it retains all of its architecturally significant features except for the original frame porch.

ARCHITECTURE

SOURCES

Picturesque Tri-Cities; Davenport, 1901. C.J. Martin, publisher.

Insurance Maps of Davenport, Iowa. New York Sanborn Map Co., 1886, 1892, 1910, 1920 and 1930.

SIGNIFICANCE

HISTORY

DESCRIPTION

This house was erected in c. 1890 for A.J. Hirschel and his wife Charlotte. A different house was on this site when the Hirschel's acquired the property in 1885 than when they sold it in 1892 to H.O. Seiffert. Hirschel was an attorney with the firm Hinz and Hirschel and was probably part of the local Hungarian community. H.O. Seiffert was an important local lumber magnet, serving as president of "Seiffert and Weis Lumber Company" at the time he acquired the house. The house is more commonly known by its second owner due to the nearly 50 year occupancy by the Seiffert family.

JRCS

City Directories, 1884-85, 1887, 1890-91, 1892-93.

Scott County Auditor's Deed Transfer Books, Vol. 4:39.

ARCHITECTURAL HISTORIAN: Martha Bowers

HISTORIAN: MARLYS SVENDSEN - ROESLER

SURVEY COMP. 1981

EVALUATION

ARCHITECTURAL

I ARCH EVALUATION Excellent
II ENVIR. STATURE Dominant
III INT OF CONTEXT Outstanding
IV INT OF FABRIC Good

LEVEL OF SIGNIFICANCE:

☐ NAT ☐ STATE ☒ LOCAL ☐ N ELIG

HISTORICAL

I. THEME(S) OF SIGNIFICANCE

A PRIMARY _____

B SECONDARY _____

LEVEL OF SIGNIFICANCE

☐ NAT ☐ STATE ☐ LOCAL

III NRHP

ELIGIBLE ☐ NOT ELIGIBLE ☐

HISTORIC DISTRICT CLASSIFICATION

☒ A ☐ B ☐ C

FOR DIVISION OF HISTORIC PRESERVATION USE ONLY

1 DATE RECEIVED _____

2 DATE OF STAFF EVALUATION _____

A ARCHITECTURAL

B HISTORICAL

ELIGIBLE FOR NRHP ☐☐NOT ELIGIBLE FOR NRHP ☐☐

3 NRHP ACTION

A STATE REVIEW COMM

APP ☐DISAPP ☐TABLED ☐

DATE _____

B FEDERAL REVIEW

APP ☐DISAPP ☐TABLED ☐

DATE _____

4 D.H.P. SOURCES

☐ COUNTY RESOURCES☐ W'SHIELD SURVEY☐ NRHP☐ GRANT _____☐ DET OF ELIGIBILITY☐ R & C _____☒ DAVENPORT A/H SURVEY☐ _____☐ _____

5 SUBJECT TRACES

6 PHOTO

1616-3

1623-10,11

ARCHITECTURAL/HISTORICAL SURVEY

DAVENPORT, IOWA

The Architects Office

Wehner, Nowysz, Pottschull and Pfiffner
901 old building, Iowa city, Iowa 59840

DAVENPORT COMMUNITY DEVELOPMENT DEPARTMENT
IOWA DIVISION OF HISTORIC PRESERVATION

82 - 10 - 6-W532

ADDITIONAL PHOTOGRAPHS:



CONTINUATION

The Architects Office

Wehner, Nowysz, Pattschull and Pfiffner

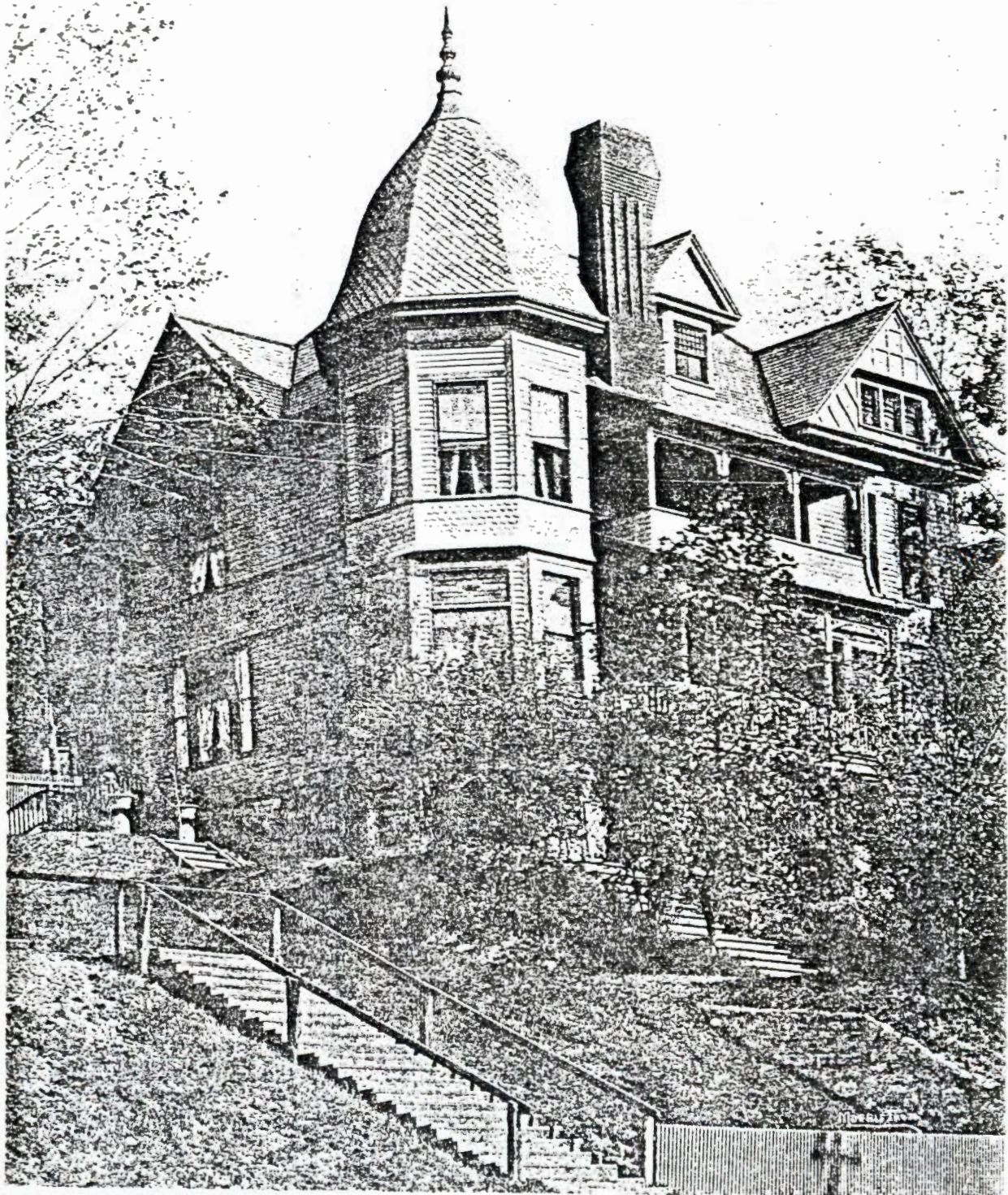
801 day building, iowa city, iowa 52240

DAVENPORT COMMUNITY DEVELOPMENT DEPARTMENT
IOWA DIVISION OF HISTORIC PRESERVATION

82-10- 6-W532

ARCHITECTURE:

Statement continued.

H. O. Seifert Residence in 1901 from Pictureque Tri-Cities



[Home](#) > [How to Preserve](#) > [Preservation Briefs](#) > 2 Repointing Mortar Joints

Some of the web versions of the Preservation Briefs differ somewhat from the printed versions. Many illustrations are new and in color; Captions are simplified and some complex charts are omitted. To order hard copies of the Briefs, see [Printed Publications](#).

PRESERVATION BRIEFS

2

Repointing Mortar Joints in Historic Masonry Buildings

Robert C. Mack, FAIA, and John P. Speweik

[Historical Background](#)

[Identifying the Problem Before Repointing](#)

[Finding an Appropriate Mortar Match](#)

[Properties of Mortar](#)

[Mortar Analysis](#)

[Components of Mortar](#)

[Mortar Type and Mix](#)

[Budgeting and Scheduling](#)

[Contractor Selection](#)

[Execution of the Work](#)

[Visually Examining the Mortar and the Masonry Units](#)

[Summary and References](#)

[Reading List](#)

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Soft mortar for repointing. Photo: John P. Speweik.

Masonry—brick, stone, terra-cotta, and concrete block—is found on nearly every historic building. Structures with all-masonry exteriors come to mind immediately, but most other buildings at least have masonry foundations or chimneys. Although generally considered "permanent," masonry is subject to deterioration, especially at the mortar joints. Repointing, also known simply as "pointing" or—somewhat inaccurately—"tuck pointing"*, is the process of removing deteriorated mortar from the joints of a masonry wall and replacing it with new mortar. Properly done, repointing restores the visual and physical integrity of the masonry. Improperly done, repointing not only detracts from the appearance of the building, but may also cause physical damage to the masonry units themselves.

The purpose of this Brief is to provide general guidance on appropriate materials and methods for repointing historic masonry buildings and it is intended to benefit building owners, architects, and contractors. The Brief should serve as a guide to prepare specifications for repointing historic masonry buildings. It should also help develop sensitivity to the particular needs of historic masonry, and to assist historic building owners in working cooperatively with architects, architectural conservators and historic preservation consultants, and contractors. Although specifically intended for historic buildings, the guidance is appropriate for other masonry buildings as well. This publication updates *Preservation Briefs 2: Repointing Mortar Joints in Historic Brick Buildings* to include all types of historic unit masonry. The scope of the earlier Brief has also been expanded to acknowledge that the many buildings constructed in the first half of the 20th century are now

historic and eligible for listing in the National Register of Historic Places, and that they may have been originally constructed with portland cement mortar.

**Tuckpointing technically describes a primarily decorative application of a raised mortar joint or lime putty joint on top of flush mortar joints.*

Historical Background

Mortar consisting primarily of lime and sand has been used as an integral part of masonry structures for thousands of years. Up until about the mid-19th century, lime or quicklime (sometimes called lump lime) was delivered to construction sites, where it had to be slaked, or combined with water. Mixing with water caused it to boil and resulted in a wet lime putty that was left to mature in a pit or wooden box for several weeks, up to a year. Traditional mortar was made from lime putty, or slaked lime, combined with local sand, generally in a ratio of 1 part lime putty to 3 parts sand by volume. Often other ingredients, such as crushed marine shells (another source of lime), brick dust, clay, natural cements, pigments, and even animal hair were also added to mortar, but the basic formulation for lime putty and sand mortar remained unchanged for centuries until the advent of portland cement or its forerunner, Roman cement, a natural, hydraulic cement.

Portland cement was patented in Great Britain in 1824. It was named after the stone from Portland in Dorset which it resembled when hard. This is a fast-curing, hydraulic cement which hardens under water. Portland cement was first manufactured in the United States in 1871, although it was imported before this date. But it was not in common use throughout the country until the early 20th century. Up until the turn of the century portland cement was considered primarily an additive, or "minor ingredient" to help accelerate mortar set time. By the 1930s, however, most masons used a mix of equal parts portland cement and lime putty. Thus, the mortar found in masonry structures built between 1871 and 1930 can range from pure lime and sand mixes to a wide variety of lime, portland cement, and sand combinations.

In the 1930s more new mortar products intended to hasten and simplify masons' work were introduced in the U.S. These included **masonry cement**, a premixed, bagged mortar which is a combination of portland cement and ground limestone, and **hydrated lime**, machine-slaked lime that eliminated the necessity of slaking quicklime into putty at the site.

Identifying the Problem Before Repointing

The decision to repoint is most often related to some obvious sign of deterioration, such as disintegrating mortar, cracks in mortar joints, loose bricks or stones, damp walls, or damaged plasterwork. It is, however, erroneous to assume that repointing alone will solve deficiencies that result from other problems. The root cause of the deterioration—leaking roofs or gutters, differential settlement of the building, capillary action causing rising damp, or extreme weather exposure—should always be dealt with prior to beginning work.

Without appropriate repairs to eliminate the source of the problem, mortar deterioration will continue and any repointing will have been a waste of time and money.

Use of Consultants

Because there are so many possible causes for deterioration in historic buildings, it may be desirable to retain a consultant, such as a historic architect or architectural conservator, to analyze the building. In addition to determining the most appropriate solutions to the problems, a consultant can prepare specifications which reflect the particular requirements of each job and can provide oversight of the work in progress. Referrals to preservation consultants frequently can be obtained from State Historic Preservation Offices, the American Institute for Conservation of Historic and Artistic Works (AIC), the Association for Preservation Technology (APT), and local chapters of the American Institute of Architects (AIA).



Masons practice using lime putty mortar to repair historic marble. Photo: NPS files.

Finding an Appropriate Mortar Match

Preliminary research is necessary to ensure that the proposed repointing work is both physically and visually appropriate to the building. Analysis of unweathered portions of the historic mortar to which the new mortar will be matched can suggest appropriate mixes for the repointing mortar so that it will not damage the building because it is excessively strong or vapor impermeable.

Examination and analysis of the masonry units—brick, stone or terra cotta—and the techniques used in the original construction will assist in maintaining the building's historic appearance. A simple, non-technical, evaluation of the masonry units and mortar can provide information concerning the relative strength and permeability of each—critical

factors in selecting the repointing mortar—while a visual analysis of the historic mortar can provide the information necessary for developing the new mortar mix and application techniques.

Although not crucial to a successful repointing project, for projects involving properties of special historic significance, a mortar analysis by a qualified laboratory can be useful by providing information on the original ingredients. However, there are limitations with such an analysis, and replacement mortar specifications should not be based solely on laboratory analysis. Analysis requires interpretation, and there are important factors which affect the condition and performance of the mortar that cannot be established through laboratory analysis. These may include: the original water content, rate of curing, weather conditions during original construction, the method of mixing and placing the mortar, and the cleanliness and condition of the sand. *The most useful information that can come out of laboratory analysis is the identification of sand by gradation and color.* This allows the color and the texture of the mortar to be matched with some accuracy because sand is the largest ingredient by volume.



This late 19th century granite has recently been repointed with the joint profile and mortar color carefully matched to the original. Photo: NPS files.

In creating a repointing mortar that is compatible with the masonry units, the objective is to achieve one that matches the historic mortar as closely as possible, so that the new material can coexist with the old in a sympathetic, supportive and, if necessary, sacrificial capacity. The exact physical and chemical properties of the historic mortar are not of major significance as long as the new mortar conforms to the following criteria:

- The new mortar must match the historic mortar in **color, texture and tooling**. (If a laboratory analysis is undertaken, it may be possible to match the binder components and their proportions with the historic mortar, if those materials are available.)
- The **sand must match the sand** in the historic mortar. (The color and texture of the new mortar will usually fall into place if the sand is matched successfully.)
- The new mortar must have **greater vapor permeability** and be **softer** (measured in compressive strength) than the masonry units.
- The new mortar must be **as vapor permeable** and **as soft or softer** (measured in compressive strength) than the historic mortar. (Softness or hardness is not necessarily an indication of permeability; old, hard lime mortars can still retain high permeability.)

Mortar Analysis

Methods for analyzing mortars can be divided into two broad categories: **wet chemical** and **instrumental**. Many laboratories that analyze historic mortars use a simple **wet-chemical** method called acid digestion, whereby a sample of the mortar is crushed and then mixed with a dilute acid. The acid dissolves all the carbonate-containing minerals not only in the binder, but also in the aggregate (such as oyster shells, coral sands, or other carbonate-based materials), as well as any other acid-soluble materials. The sand and fine-grained acid-insoluble material is left behind. There are several variations on the simple acid digestion test. One involves collecting the carbon dioxide gas given off as the carbonate is digested by the acid; based on the gas volume the carbonate content of the mortar can be accurately determined (Jedrzejewska, 1960). Simple acid digestion methods are rapid, inexpensive, and easy to perform, but the information they provide about the original composition of a mortar is limited to the color and texture of the sand. The gas collection method provides more information about the binder than a simple acid digestion test.

Instrumental analysis methods that have been used to evaluate mortars include polarized light or thin-section microscopy, scanning electron microscopy, atomic absorption spectroscopy, X-ray diffraction, and differential thermal analysis. All instrumental methods require not only expensive, specialized equipment, but also highly-trained experienced analysts. However, instrumental methods can provide much more information about a mortar. Thin-section microscopy is probably the most commonly used instrumental method. Examination of thin slices of a mortar in transmitted light is often used to supplement acid digestion methods, particularly to look for carbonate-based aggregate. For example, the new ASTM test method, ASTM C 1324-96 "Test Method for Examination and Analysis of Hardened Mortars" which was designed specifically for the analysis of modern lime-cement and masonry cement mortars, combines a complex series of wet chemical analyses with thin-section microscopy.

The drawback of most mortar analysis methods is that mortar samples of known composition have not been analyzed in order to evaluate the method. Historic mortars were not prepared to narrowly defined specifications from materials of uniform quality; they contain a wide array of locally derived materials combined at the discretion of the mason. While a



This mortar is the proper consistency for repointing historic brick. Photo: John P. Speweik.

particular method might be able to accurately determine the original proportions of a lime-cement-sand mortar prepared from modern materials, the usefulness of that method for evaluating historic mortars is questionable unless it has been tested against mortars prepared from materials more commonly used in the past.

Properties of Mortar

Mortars for repointing should be softer or more permeable than the masonry units and no harder or more impermeable than the historic mortar to prevent damage to the masonry units. It is a common error to assume that hardness or high strength is a measure of appropriateness, particularly for lime-based historic mortars. Stresses within a wall caused by expansion, contraction, moisture migration, or settlement must be accommodated in some manner; in a masonry wall, these stresses should be relieved by the mortar rather than by the masonry units. A mortar that is stronger in compressive strength than the masonry units will not "give," thus causing stresses to be relieved through the masonry units—resulting in permanent damage to the masonry, such as cracking and spalling, that cannot be repaired easily.

While stresses can also break the bond between the mortar and the masonry units, permitting water to penetrate the resulting hairline cracks, this is easier to correct in the joint through repointing than if the break occurs in the masonry units.

Permeability, or rate of vapor transmission, is also critical. High lime mortars are more permeable than denser cement mortars. Historically, mortar acted as a bedding material—not unlike an expansion joint—rather than a "glue" for the masonry units, and moisture was able to migrate through the mortar joints rather than the masonry units. When moisture evaporates from the masonry it deposits any soluble salts either on the surface as *efflorescence* or below the surface as *subflorescence*. While salts deposited on the surface of masonry units are usually relatively harmless, salt crystallization within a masonry unit creates pressure that can cause parts of the outer surface to spall off or delaminate. If the mortar does not permit moisture or moisture vapor to migrate out of the wall and evaporate, the result will be damage to the masonry units.



This early 19th century building is being repointed with lime mortar. Photo: Travis McDonald.

Components of Mortar

Sand

Sand is the largest component of mortar and the material that gives mortar its distinctive color, texture and cohesiveness. Sand must be free of impurities, such as salts or clay. The three key characteristics of sand are: particle shape, gradation and void ratios.

When viewed under a magnifying glass or low-power microscope, particles of sand generally have either rounded edges, such as found in beach and river sand, or sharp, angular edges, found in crushed or manufactured sand. For repointing mortar, rounded or natural sand is preferred for two reasons. It is usually similar to the sand in the historic mortar and provides a better visual match. It also has better working qualities or plasticity and can thus be forced into the joint more easily, forming a good contact with the remaining historic mortar and the surface of the adjacent masonry units. Although manufactured sand is frequently more readily available, it is usually possible to locate a supply of rounded sand.

The gradation of the sand (particle size distribution) plays a very important role in the durability and cohesive properties of a mortar. Mortar must have a certain percentage of large to small particle sizes in order to deliver the optimum performance. Acceptable guidelines on particle size distribution may be found in ASTM C 144 (American Society for Testing and Materials). However, in actuality, since neither historic nor modern sands are always in compliance with ASTM C 144, matching the same particle appearance and gradation usually requires sieving the sand.

A scoop of sand contains many small voids between the individual grains. A mortar that performs well fills all these small voids with binder (cement/lime combination or mix) in a balanced manner. Well-graded sand generally has a 30 per cent void ratio by volume. Thus, 30 per cent binder by volume generally should be used, unless the historic mortar had a different binder: aggregate ratio. This represents the 1:3 binder to sand ratios often seen in mortar specifications.

For repointing, sand generally should conform to ASTM C 144 to assure proper gradation and freedom from impurities; some variation may be necessary to match the original size and gradation. Sand color and texture also should match the original as closely as possible to provide the proper color match without other additives.

Lime

Mortar formulations prior to the late-19th century used lime as the primary binding material. Lime is derived from heating limestone at high temperatures which burns off the carbon dioxide, and turns the limestone into quicklime. There are three types of limestone—calcium, magnesium, and dolomitic—differentiated by the different levels of magnesium carbonate they

contain which impart specific qualities to mortar. Historically, calcium lime was used for mortar rather than the dolomitic lime (calcium magnesium carbonate) most often used today. But it is also important to keep in mind the fact that the historic limes, and other components of mortar, varied a great deal because they were natural, as opposed to modern lime which is manufactured and, therefore, standardized. Because some of the kinds of lime, as well as other components of mortar, that were used historically are no longer readily available, even when a conscious effort is made to replicate a "historic" mix, this may not be achievable due to the differences between modern and historic materials.

Lime, itself, when mixed with water into a paste is very plastic and creamy. It will remain workable and soft indefinitely, if stored in a sealed container. Lime (calcium hydroxide) hardens by carbonation absorbing carbon dioxide primarily from the air, converting itself to calcium carbonate. Once a lime and sand mortar is mixed and placed in a wall, it begins the process of carbonation. If lime mortar is left to dry too rapidly, carbonation of the mortar will be reduced, resulting in poor adhesion and poor durability. In addition, lime mortar is slightly water soluble and thus is able to re-seal any hairline cracks that may develop during the life of the mortar. Lime mortar is soft, porous, and changes little in volume during temperature fluctuations thus making it a good choice for historic buildings. *Because of these qualities, high calcium lime mortar may be considered for many repointing projects, not just those involving historic buildings.*



Caulking was inappropriately used here in place of mortar on the top of the wall. As a result, it has not been durable. Photo: NPS files.

For repointing, lime should conform to ASTM C 207, Type S, or Type SA, Hydrated Lime for Masonry Purposes. This machine-slaked lime is designed to assure high plasticity and water retention. The use of quicklime which must be slaked and soaked by hand may have advantages over hydrated lime in some restoration projects if time and money allow.

Lime Putty

Lime putty is slaked lime that has a putty or paste-like consistency. It should conform to ASTM C 5. Mortar can be mixed using lime putty according to ASTM C 270 property or proportion specification.

Portland Cement

More recent, 20th-century mortar has used portland cement as a primary binding material. A straight portland cement and sand mortar is extremely hard, resists the movement of water, shrinks upon setting, and undergoes relatively large thermal movements. When mixed with water, portland cement forms a harsh, stiff paste that is quite unworkable, becoming hard very quickly. (Unlike lime, portland cement will harden regardless of weather conditions and does not require wetting and drying cycles.) Some portland cement assists the workability and plasticity of the mortar without adversely affecting the finished project; it also provides early strength to the mortar and speeds setting. Thus, it may be appropriate to add some portland cement to an essentially lime-based mortar even when repointing relatively soft 18th or 19th century brick under some circumstances when a slightly harder mortar is required. The more portland cement that is added to a mortar formulation the harder it becomes—and the faster the initial set.

For repointing, portland cement should conform to ASTM C 150. White, non-staining portland cement may provide a better color match for some historic mortars than the more commonly available grey portland cement. But, it should not be assumed, however, that white portland cement is always appropriate for all historic buildings, since the original mortar may have been mixed with grey cement. The cement should not have more than 0.60 per cent alkali to help avoid efflorescence.

Masonry Cement

Masonry cement is a preblended mortar mix commonly found at hardware and home repair stores. It is designed to produce mortars with a compressive strength of 750 psi or higher when mixed with sand and water at the job site. It may contain hydrated lime, but it always contains a large amount of portland cement, as well as ground limestone and other workability agents, including air-entraining agents. Because masonry cements are not required to contain hydrated lime, and generally do not contain lime, they produce high strength mortars that can damage historic masonry. *For this reason, they generally are not recommended for use on historic masonry buildings.*

Lime Mortar (pre-blended)

Hydrated lime mortars, and pre-blended lime putty mortars with or without a matched sand are commercially available. Custom mortars are also available with color. In most instances, pre-blended lime mortars containing sand may not provide an exact match; however, if the project calls for total repointing, a pre-blended lime mortar may be worth considering as long as the mortar is compatible in strength with the masonry. If the project involves only selected, "spot" repointing, then it may be better to carry out a mortar analysis which can provide a custom pre-blended lime mortar with a matching sand.

In either case, if a preblended lime mortar is to be used, it should contain Type S or SA hydrated lime conforming to ASTM C 207.

Water

Water should be potable—clean and free from acids, alkalis, or other dissolved organic materials.

Other Components

Historic components

In addition to the color of the sand, the texture of the mortar is of critical importance in duplicating historic mortar. Most mortars dating from the mid-19th century on—with some exceptions—have a fairly homogeneous texture and color. Some earlier mortars are not as uniformly textured and may contain lumps of partially burned lime or "dirty lime", shell (which often provided a source of lime, particularly in coastal areas), natural cements, pieces of clay, lampblack or other pigments, or even animal hair. The visual characteristics of these mortars can be duplicated through the use of similar materials in the repointing mortar.

Replicating such unique or individual mortars will require writing new specifications for each project. If possible, suggested sources for special materials should be included. For example, crushed oyster shells can be obtained in a variety of sizes from poultry supply dealers.

Pigments

Some historic mortars, particularly in the late 19th century, were tinted to match or contrast with the brick or stone. Red pigments, sometimes in the form of brick dust, as well as brown, and black pigments were commonly used. Modern pigments are available which can be added to the mortar at the job site, but they should not exceed 10 per cent by weight of the portland cement in the mix, and carbon black should be limited to 2 per cent. Only synthetic mineral oxides, which are alkali-proof and sun-fast, should be used to prevent bleaching and fading.

Modern Components

Admixtures are used to create specific characteristics in mortar, and whether they should be used will depend upon the individual project. *Air entraining agents*, for example, help the mortar to resist freeze-thaw damage in northern climates. *Accelerators* are used to reduce mortar freezing prior to setting while *retarders* help to extend the mortar life in hot climates. Selection of admixtures should be made by the architect or architectural conservator as part of the specifications, not something routinely added by the masons.

Generally, modern chemical additives are unnecessary and may, in fact, have detrimental effects in historic masonry projects. The use of antifreeze compounds is not recommended. They are not very effective with high lime mortars and may introduce salts, which may cause efflorescence later. A better practice is to warm the sand and water, and to protect the completed work from freezing. No definitive study has determined whether air-entraining additives should be used to resist frost action and enhance plasticity, but in areas of extreme exposure requiring high-strength mortars with lower permeability, air-entrainment of 10-16 percent may be desirable (see formula for "severe weather exposure" in Mortar Type and Mix). Bonding agents are not a substitute for proper joint preparation, and they should generally be avoided. If the joint is properly prepared, there will be a good bond between the new mortar and the adjacent surfaces. In addition, a bonding agent is difficult to remove if smeared on a masonry surface.

Mortar Type and Mix

Mortars for repointing projects, especially those involving historic buildings, typically are custom mixed in order to ensure the proper physical and visual qualities. These materials can be combined in varying proportions to create a mortar with the desired performance and durability. The actual specification of a particular mortar type should take into consideration all of the factors affecting the life of the building including: current site conditions, present condition of the masonry, function of the new mortar, degree of weather exposure, and skill of the mason.

Thus, no two repointing projects are exactly the same. Modern materials specified for use in repointing mortar should conform to specifications of the American Society for Testing and Materials (ASTM) or comparable federal specifications, and the resulting mortar should conform to ASTM C 270, Mortar for Unit Masonry.

Specifying the proportions for the repointing mortar for a specific job is not as difficult as it might seem. Five mortar types, each with a corresponding recommended mix, have been established by ASTM to distinguish high strength mortar from soft flexible mortars. The ASTM designated them in decreasing order of approximate general strength as Type M (2,500 psi), Type S (1,800 psi), Type N (750 psi), Type O (350 psi) and Type K (75 psi). (The letters identifying the types are from the words MASON WORK using every other letter.) Type K has the highest lime content of the mixes that contain portland cement, although it is seldom used today, except for some historic preservation projects. The designation "L" in the accompanying chart identifies a straight lime and sand mix. Specifying the appropriate ASTM mortar by proportion of



Here, a hammer and chisel are being correctly used to prepare a joint for repointing. Photo: John P. Speweik.

ingredients, will ensure the desired physical properties. Unless specified otherwise, measurements or proportions for mortar mixes are always given in the following order: cement-lime-sand. Thus, a Type K mix, for example, would be referred to as 1-3-10, or 1 part cement to 3 parts lime to 10 parts sand. Other requirements to create the desired visual qualities should be included in the specifications.

The strength of a mortar can vary. If mixed with higher amounts of portland cement, a harder mortar is obtained. The more lime that is added, the softer and more plastic the mortar becomes, increasing its workability. A mortar strong in compressive strength might be desirable for a hard stone (such as granite) pier holding up a bridge deck, whereas a softer, more permeable lime mortar would be preferable for a historic wall of soft brick. Masonry deterioration caused by salt deposition results when the mortar is less permeable than the masonry unit. A strong mortar is still more permeable than hard, dense stone. However, in a wall constructed of soft bricks where the masonry unit itself has a relatively high permeability or vapor transmission rate, a soft, high lime mortar is necessary to retain sufficient permeability.

Budgeting and Scheduling

Repointing is both expensive and time consuming due to the extent of handwork and special materials required. It is preferable to repoint only those areas that require work rather than an entire wall, as is often specified. But, if 25 to 50 per cent or more of a wall needs to be repointed, repointing the entire wall may be more cost effective than spot repointing.

Total repointing may also be more sensible when access is difficult, requiring the erection of expensive scaffolding (unless the majority of the mortar is sound and unlikely to require replacement in the foreseeable future). Each project requires judgement based on a variety of factors. Recognizing this at the outset will help to prevent many jobs from becoming prohibitively expensive.

In scheduling, seasonal aspects need to be considered first. Generally speaking, wall temperatures between 40 and 95 degrees F (8 and 38 degrees C) will prevent freezing or excessive evaporation of the water in the mortar. Ideally, repointing should be done in shade, away from strong sunlight in order to slow the drying process, especially during hot weather. If necessary, shade can be provided for large-scale projects with appropriate modifications to scaffolding.

The relationship of repointing to other work proposed on the building must also be recognized. For example, if paint removal or cleaning is anticipated, and if the mortar joints are basically sound and need only selective repointing, it is generally better to postpone repointing until after completion of these activities. However, if the mortar has eroded badly, allowing moisture to penetrate deeply into the wall, repointing should be accomplished before cleaning. Related work, such as structural or roof repairs, should be scheduled so that they do not interfere with repointing and so that all work can take maximum advantage of erected scaffolding.



When repairing this stone wall, the mason matched the raised profile of the original tuckpointing. Photo: NPS files.

Building managers also must recognize the difficulties that a repointing project can create. The process is time consuming, and scaffolding may need to remain in place for an extended period of time. The joint preparation process can be quite noisy and can generate large quantities of dust which must be controlled, especially at air intakes to protect human health, and also where it might damage operating machinery. Entrances may be blocked from time to time making access difficult for both building tenants and visitors. Clearly, building managers will need to coordinate the repointing work with other events at the site.

Contractor Selection

Contractor Selection The ideal way to select a contractor is to ask knowledgeable owners of recently repointed historic buildings for recommendations. Qualified contractors then can provide lists of other repointing projects for inspection. More commonly, however, the contractor for a repointing project is selected through a competitive bidding process over which the client or consultant has only limited control. In this situation it is important to ensure that the specifications stipulate that masons must have a minimum of five years' experience with repointing historic masonry buildings to be eligible to bid on the project. Contracts are awarded to the lowest responsible bidder, and bidders who have performed poorly on other projects usually can be eliminated from consideration on this basis, even if they have the lowest prices.



A mechanical grinder improperly used to cut out the horizontal joint and incompatible repointing have seriously damaged the 19th century brick. Photo: NPS files.

The contract documents should call for unit prices as well as a base bid. Unit pricing forces the contractor to determine in advance what the cost addition or reduction will be for work which varies from the scope of the base bid. If, for example, the contractor has fifty linear feet less of stone repointing than indicated on the contract documents but thirty linear feet more of brick repointing, it will be easy to determine the final price for the work. Note that each type of work—brick repointing, stone repointing, or similar items—will have its own unit price. The unit price also should reflect quantities; one linear foot of pointing in five different spots will be more expensive than five contiguous linear feet.

Execution of the Work

Test Panels

These panels are prepared by the contractor using the same techniques that will be used on the remainder of the project. Several panel locations—preferably not on the front or other highly visible location of the building—may be necessary to include all types of masonry, joint styles, mortar colors, and other problems likely to be encountered on the job.



Unskilled repointing has negatively impacted the character of this late-19th century building. Photo: NPS files.

If cleaning tests, for example, are also to be undertaken, they should be carried out in the same location. Usually a 3 foot by 3 foot area is sufficient for brickwork, while a somewhat larger area may be required for stonework. These panels establish an acceptable standard of work and serve as a benchmark for evaluating and accepting subsequent work on the building.

Joint Preparation

Old mortar should be removed to a minimum depth of 2 to 2-1/2 times the width of the joint to ensure an adequate bond and to prevent mortar "popouts." For most brick joints, this will require removal of the mortar to a depth of approximately 1 to 1 1/2 inch; for stone masonry with wide joints, mortar may need to be removed to a depth of several inches. Any loose or disintegrated mortar beyond this minimum depth also should be removed.

Although some damage may be inevitable, careful joint preparation can help limit damage to masonry units. The traditional manner of removing old mortar is through the use of hand chisels and mash hammers. Though labor-intensive, in most instances this method poses the least threat for damage to historic masonry units and produces the best final product.

The most common method of removing mortar, however, is through the use of power saws or grinders. The use of power tools by unskilled masons can be disastrous for historic masonry, particularly soft brick. Using power saws on walls with thin joints, such as most brick walls, almost always will result in damage to the masonry units by breaking the edges and by overcutting on the head, or vertical joints.

However, small pneumatically-powered chisels generally can be used safely and effectively to remove mortar on historic buildings as long as the masons maintain appropriate control over the equipment. Under certain circumstances, thin diamond-bladed grinders may be used to cut out *horizontal* joints only on hard portland cement mortar common to most early-20th century masonry buildings. Usually, automatic tools most successfully remove old mortar without damaging the masonry units when they are used in combination with hand tools in preparation for repointing. Where horizontal joints are uniform and fairly wide, it may be possible to use a power masonry saw to assist the removal of mortar, such as by cutting along the middle of the joint; final mortar removal from the sides of the joints still should be done with a hand chisel and hammer. Caulking cutters with diamond blades can sometimes be used successfully to cut out joints without damaging the masonry. Caulking cutters are slow; they do not rotate, but vibrate at very high speeds, thus minimizing the possibility of damage to masonry units. Although mechanical tools may be safely used in limited circumstances to cut out horizontal joints in preparation for repointing, they should never be used on vertical joints because of the danger of slipping and cutting into the brick above or below the vertical joint. Using power tools to remove mortar without damaging the surrounding masonry units also necessitates highly skilled masons experienced in working on historic masonry buildings. Contractors should demonstrate proficiency with power tools before their use is approved.

Using any of these power tools may also be more acceptable on hard stone, such as quartzite or granite, than on terra cotta with its glass-like glaze, or on soft brick or stone. The test panel should determine the acceptability of power tools. If power tools are to be permitted, the contractor should establish a quality control program to account for worker fatigue and similar variables.

Mortar should be removed cleanly from the masonry units, leaving square corners at the back of the cut. Before filling, the joints should be rinsed with a jet of water to remove all loose particles and dust. At the time of filling, the joints should be damp, but with no standing water present. For masonry walls—limestone, sandstone and common brick—that are extremely absorbent, it is recommended that a continual mist of water be applied for a few hours before repointing begins.

Mortar Preparation

Mortar components should be measured and mixed carefully to assure the uniformity of visual and physical characteristics. Dry ingredients are measured by volume and thoroughly mixed before the addition of any water. Sand must be added in a damp, loose condition to avoid over sanding. Repointing mortar is typically pre-hydrated by adding water so it will just hold together, thus allowing it to stand for a period of time before the final water is added. Half the water should be added, followed by mixing for approximately 5 minutes. The remaining water should then be added in small portions until a mortar of the desired consistency is reached. The total volume of water necessary may vary from batch to batch, depending on weather conditions. It is important to keep the water to a minimum for two reasons: first, a drier mortar is cleaner to work with, and it can be compacted tightly into the joints; second, with no excess water to evaporate, the mortar cures without shrinkage cracks. Mortar should be used within approximately 30 minutes of final mixing, and "retempering," or adding more water, should not be permitted.

Using Lime Putty to Make Mortar

Mortar made with lime putty and sand, sometimes referred to as roughage or course stuff, should be measured by volume, and may require slightly different proportions from those used with hydrated lime. No additional water is usually needed to achieve a workable consistency because enough water is already contained in the putty. Sand is proportioned first, followed by the lime putty, then mixed for five minutes or until all the sand is thoroughly coated with the lime putty. But mixing, in the familiar sense of turning over with a hoe, sometimes may not be sufficient if the best possible performance is to be obtained from a lime putty mortar. Although the old practice of chopping, beating and ramming the mortar has largely been forgotten, recent field work has confirmed that lime putty and sand rammed and beaten with a wooden mallet or ax handle, interspersed by chopping with a hoe, can significantly improve workability and performance. The intensity of this action increases the overall lime/sand contact and removes any surplus water by compacting the other ingredients. It may also be advantageous for larger projects to use a mortar pan mill for mixing. Mortar pan mills which have a long tradition in Europe produce a superior lime putty mortar not attainable with today's modern paddle and drum type mixers.

For larger repointing projects the lime putty and sand can be mixed together ahead of time and stored indefinitely, on or off site, which eliminates the need for piles of sand on the job site. This mixture, which resembles damp brown sugar, must be protected from the air in sealed containers with a wet piece of burlap over the top or sealed in a large plastic bag to prevent evaporation and premature carbonation. The lime putty and sand mixture can be recombined into a workable plastic state months later with no additional water.

If portland cement is specified in a lime putty and sand mortar—Type O (1:2:9) or Type K (1:3:11)—the portland cement should first be mixed into a slurry paste before adding it to the lime putty and sand. Not only will this ensure that the portland cement is evenly distributed throughout the mixture, but if dry portland cement is added to wet ingredients it tends to "ball up," jeopardizing dispersion. (Usually water must be added to the lime putty and sand anyway once the portland cement is introduced.) Any color pigments should be added at this stage and mixed for a full five minutes. The mortar should be used within 30 minutes to 12 hours and it should not be retempered. Once portland cement has been added the mortar can no longer be stored.

Filling the Joint

Where existing mortar has been removed to a depth of greater than 1 inch, these deeper areas should be filled first, compacting the new mortar in several layers. The back of the entire joint should be filled successively by applying approximately 1/4 inch of mortar, packing it well into the back corners. This application may extend along the wall for several feet. As soon as the mortar has reached thumb-print hardness, another 1/4 inch layer of mortar—approximately the same thickness—may be applied. Several layers will be needed to fill the joint flush with the outer surface of the masonry. It is important to allow each layer time to harden before the next layer is applied; most of the mortar shrinkage occurs during the hardening process and layering thus minimizes overall shrinkage.

When the final layer of mortar is thumb-print hard, the joint should be tooled to match the historic joint. Proper timing of the tooling is important for uniform color and appearance. If tooled when too soft, the color will be lighter than expected, and hairline cracks may occur; if tooled when too hard, there may be dark streaks called "tool burning," and good closure of the mortar against the masonry units will not be achieved.

If the old bricks or stones have worn, rounded edges, it is best to recess the final mortar slightly from the face of the masonry. This treatment will help avoid a joint which is visually wider than the actual joint; it also will avoid creation of a large, thin featheredge which is easily damaged, thus admitting water. After tooling, excess mortar can be removed from the edge of the joint by brushing with a natural bristle or nylon brush. Metal bristle brushes should never be used on historic masonry.

Curing Conditions

The preliminary hardening of high-lime content mortars—those mortars that contain more lime by volume than portland cement, i.e., Type O (1:2:9), Type K (1:3:11), and straight lime/sand, Type "L" (0:1:3)—takes place fairly rapidly as water in the mix is lost to the porous surface of the masonry and through evaporation. A high lime mortar (especially Type "L") left to dry out too rapidly can result in chalking, poor adhesion, and poor durability. Periodic wetting of the repointed area after the mortar joints are thumb-print hard and have been finish tooled may significantly accelerate the carbonation process. When feasible, misting using a hand sprayer with a fine nozzle can be simple to do for a day or two after repointing. Local conditions will dictate the frequency of wetting, but initially it may be as often as every hour and gradually reduced to every three or four hours. Walls should be covered with burlap for the first three days after repointing. (Plastic may be used, but it should be tented out and not placed directly against the wall.) This helps keep the walls damp and protects them from direct sunlight. Once carbonation of the lime has begun, it will continue for many years and the lime will gain strength as it reverts back to calcium carbonate within the wall.

Aging the Mortar

Even with the best efforts at matching the existing mortar color, texture, and materials, there will usually be a visible difference between the old and new work, partly because the new mortar has been matched to the unweathered portions of the historic mortar. Another reason for a slight mismatch may be that the sand is more exposed in old mortar due to the slight erosion of the lime or cement. Although spot repointing is generally preferable and some color difference should be acceptable, if the difference between old and new mortar is too extreme, it may be advisable in some instances to repoint an entire area of a wall, or an entire feature such as a bay, to minimize the difference between the old and the new mortar. If the mortars have been properly matched, usually the best way to deal with surface color differences is to let the mortars age naturally. Other treatments to overcome these differences, including cleaning the non-repointed areas or staining the new mortar, should be carefully tested prior to implementation.

Staining the new mortar to achieve a better color match is generally not recommended, but it may be appropriate in some instances. Although staining may provide an initial match, the old and new mortars may weather at different rates, leading to visual differences after a few seasons. In addition, the mixtures used to stain the mortar may be harmful to the masonry; for example, they may introduce salts into the masonry which can lead to efflorescence.

Cleaning the Repointed Masonry

If repointing work is carefully executed, there will be little need for cleaning other than to remove the small amount of mortar from the edge of the joint following tooling. This can be done with a stiff natural bristle or nylon brush after the mortar has dried, but before it is initially set (1-2 hours). Mortar that has hardened can usually be removed with a wooden paddle or, if necessary, a chisel.

Further cleaning is best accomplished with plain water and natural bristle or nylon brushes. If chemicals must be used, they should be selected with extreme caution. Improper cleaning can lead to deterioration of the masonry units, deterioration of the mortar, mortar smear, and efflorescence. New mortar joints are especially susceptible to damage because they do not become fully cured for several months. Chemical cleaners, particularly acids, should never be used on dry masonry. The masonry should always be completely soaked once with water before chemicals are applied. After cleaning, the walls should be flushed again with plain water to remove all traces of the chemicals.

Several precautions should be taken if a freshly repointed masonry wall is to be cleaned. First, the mortar should be fully hardened before cleaning. Thirty days is usually sufficient, depending on weather and exposure; as mentioned previously, the mortar will continue to cure even after it has hardened. Test panels should be prepared to evaluate the effects of different cleaning methods. Generally, on newly repointed masonry walls, only very low pressure (100 psi) water washing supplemented by stiff natural bristle or nylon brushes should be used, except on glazed or polished surfaces, where only soft cloths should be used.**

New construction "bloom" or efflorescence occasionally appears within the first few months of repointing and usually disappears through the normal process of weathering. If the efflorescence is not removed by natural processes, the safest way to remove it is by dry brushing with stiff natural or nylon bristle brushes followed by wet brushing. Hydrochloric (muriatic) acid, is generally ineffective, and it should not be used to remove efflorescence. It may liberate additional salts, which, in turn, can lead to more efflorescence.

Surface grouting is sometimes suggested as an alternative to repointing brick buildings, in particular. This process involves the application of a thin coat of cement-based grout to the mortar joints and the mortar/brick interface. To be effective, the grout must extend slightly onto the face of the masonry units, thus widening the joint visually. The change in the joint appearance can alter the historic character of the structure to an unacceptable degree. In addition, although



This 18th century pediment and surrounding wall exhibit distinctively different mortar joints. Photo: NPS files.

masking of the bricks is intended to keep the grout off the remainder of the face of the bricks, some level of residue, called "veiling," will inevitably remain. Surface grouting cannot substitute for the more extensive work of repointing, and it is not a recommended treatment for historic masonry.

***Additional information on masonry cleaning is presented in Preservation Briefs 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings, Robert C. Mack, FAIA, and Anne E. Grimmer, Washington, D.C.: Technical Preservation Services, National Park Service, U.S. Department of the Interior, 2000; and Keeping it Clean: Removing Exterior Dirt, Paint, Stains & Graffiti from Historic Masonry Buildings, Anne E. Grimmer, Washington, D.C.: Technical Preservation Services, National Park Service, U.S. Department of the Interior, 1988.*

Visually Examining the Mortar and the Masonry Units

A simple *in situ* comparison will help determine the hardness and condition of the mortar and the masonry units. Begin by scraping the mortar with a screwdriver, and gradually tapping harder with a cold chisel and mason's hammer. Masonry units can be tested in the same way beginning, even more gently, by scraping with a fingernail. This relative analysis which is derived from the 10-point hardness scale used to describe minerals, provides a good starting point for selection of an appropriate mortar. It is described more fully in "The Russack System for Brick & Mortar Description" referenced in [Reading List](#) at the end of this Brief.

Mortar samples should be chosen carefully, and picked from a variety of locations on the building to find unweathered mortar, if possible. Portions of the building may have been repointed in the past while other areas may be subject to conditions causing unusual deterioration. There may be several colors of mortar dating from different construction periods or sand used from different sources during the initial construction. Any of these situations can give false readings to the visual or physical characteristics required for the new mortar. Variations should be noted which may require developing more than one mix.

1. Remove with a chisel and hammer three or four unweathered samples of the mortar to be matched from several locations on the building. (Set the largest sample aside--this will be used later for comparison with the repointing mortar). Removing a full representation of samples will allow selection of a "mean" or average mortar sample.
2. Mash the remaining samples with a wooden mallet, or hammer if necessary, until they are separated into their constituent parts. There should be a good handful of the material.
3. Examine the powdered portion—the lime and/or cement matrix of the mortar. Most particularly, note the color. There is a tendency to think of historic mortars as having white binders, but grey portland cement was available by the last quarter of the 19th century, and traditional limes were also sometimes grey. Thus, in some instances, the natural color of the historic binder may be grey, rather than white. The mortar may also have been tinted to create a colored mortar, and this color should be identified at this point.
4. Carefully blow away the powdery material (the lime and/or cement matrix which bound the mortar together).
5. With a low power (10 power) magnifying glass, examine the remaining sand and other materials such as lumps of lime or shell.
6. Note and record the wide range of color as well as the varying sizes of the individual grains of sand, impurities, or other materials.

Other Factors to Consider

Color

Regardless of the color of the binder or colored additives, the sand is the primary material that gives mortar its color. A surprising variety of colors of sand may be found in a single sample of historic mortar, and the different sizes of the grains of sand or other materials, such as incompletely ground lime or cement, play an important role in the texture of the repointing mortar. Therefore, when specifying sand for repointing mortar, it may be necessary to obtain sand from several sources and to combine or screen them in order to approximate the range of sand colors and grain sizes in the historic mortar sample.

Pointing Style

Close examination of the historic masonry wall and the techniques used in the original construction will assist in maintaining the visual qualities of the building. Pointing styles and the methods of producing them should be examined. It is important to look at both the horizontal and the vertical joints to determine the order in which they were tooled and whether they were the same style. Some late-19th and early-20th century buildings, for example, have horizontal joints that were raked

back while the vertical joints were finished flush and stained to match the bricks, thus creating the illusion of horizontal bands. Pointing styles may also differ from one facade to another; front walls often received greater attention to mortar detailing than side and rear walls. **Tuckpointing** is not true repointing but the application of a raised joint or lime putty joint on top of flush mortar joints. **Penciling** is a purely decorative, painted surface treatment over a mortar joint, often in a contrasting color.

Masonry Units

The masonry units should also be examined so that any replacement units will match the historic masonry. Within a wall there may be a wide range of colors, textures, and sizes, particularly with hand-made brick or rough-cut, locally-quarried stone. Replacement units should blend in with the full range of masonry units rather than a single brick or stone.

Matching Color and Texture of the Repointing Mortar

New mortar should match the unweathered interior portions of the historic mortar. The simplest way to check the match is to make a small sample of the proposed mix and allow it to cure at a temperature of approximately 70 degrees F for about a week, or it can be baked in an oven to speed up the curing; this sample is then broken open and the surface is compared with the surface of the largest "saved" sample of historic mortar.

If a proper color match cannot be achieved through the use of natural sand or colored aggregates like crushed marble or brick dust, it may be necessary to use a modern mortar pigment.

During the early stages of the project, it should be determined how closely the new mortar should match the historic mortar. Will "quite close" be sufficient, or is "exactly" expected? The specifications should state this clearly so that the contractor has a reasonable idea how much time and expense will be required to develop an acceptable match.

The same judgment will be necessary in matching replacement terra cotta, stone or brick. If there is a known source for replacements, this should be included in the specifications. If a source cannot be determined prior to the bidding process, the specifications should include an estimated price for the replacement materials with the final price based on the actual cost to the contractor.

Mortar Types (Measured by volume)

Designation	Cement	Hydrated Lime or Lime Putty	Sand
M	1	1/4	3 - 3 3/4
S	1	1/2	4-4 1/2
N	1	1	5-6
O	1	2	8-9
K	1	3	10-12
"L"	0	1	2 1/4-3

Suggested Mortar Types for Different Exposures

Masonry Material	Exposure		
	Sheltered	Moderate	Severe
Very durable: granite, hard-cored brick, etc.	O	N	S
Moderately durable: limestone, durable stone, molded brick	K	O	N
Minimally durable: soft hand-made brick	"L"	K	O

Summary and References

For the Owner/Administrator

The owner or administrator of a historic building should remember that repointing is likely to be a lengthy and expensive process. First, there must be adequate time for evaluation of the building and investigation into the cause of problems. Then, there will be time needed for preparation of the contract documents. The work itself is precise, time-consuming and

noisy, and scaffolding may cover the face of the building for some time. Therefore, the owner must carefully plan the work to avoid problems. Schedules for both repointing and other activities will thus require careful coordination to avoid unanticipated conflicts. The owner must avoid the tendency to rush the work or cut corners if the historic building is to retain its visual integrity and the job is to be durable.

For the Architect/Consultant

Because the primary role of the consultant is to ensure the life of the building, a knowledge of historic construction techniques and the special problems found in older buildings is essential. The consultant must assist the owner in planning for logistical problems relating to research and construction. It is the consultant's responsibility to determine the cause of the mortar deterioration and ensure that it is corrected before the masonry is repointed. The consultant must also be prepared to spend more time in project inspections than is customary in modern construction.

For the Masons

Successful repointing depends on the masons themselves. Experienced masons understand the special requirements for work on historic buildings and the added time and expense they require. The entire masonry crew must be willing and able to perform the work in conformance with the specifications, even when the specifications may not be in conformance with standard practice. At the same time, the masons should not hesitate to question the specifications if it appears that the work specified would damage the building.

Conclusion

A good repointing job is meant to last, at least 30 years, and preferably 50- 100 years. Shortcuts and poor craftsmanship result not only in diminishing the historic character of a building, but also in a job that looks bad, and will require future repointing sooner than if the work had been done correctly. The mortar joint in a historic masonry building has often been called a wall's "first line of defense." Good repointing practices guarantee the long life of the mortar joint, the wall, and the historic structure. Although careful maintenance will help preserve the freshly repointed mortar joints, it is important to remember that mortar joints are intended to be sacrificial and will probably require repointing some time in the future. Nevertheless, if the historic mortar joints proved durable for many years, then careful repointing should have an equally long life, ultimately contributing to the preservation of the entire building.

Useful Addresses

Brick Institute of America

11490 Commerce Park Drive
Reston, VA 22091

National Lime Association

200 N. Glebe Road, Suite 800
Arlington, VA 22203

Portland Cement Association

5420 Old Orchard Road
Skokie, IL 60077

Acknowledgments

Robert C. Mack, FAIA, is a principal in the firm of MacDonald & Mack, Architects, Ltd., an architectural firm that specializes in historic buildings in Minneapolis, Minnesota. **John P. Speweik, CSI**, Toledo, Ohio, is a 5th-generation stonemason, and principal in U.S. Heritage Group, Inc., Chicago, Illinois, which does custom historic mortar matching.

Anne E. Grimmer, Senior Architectural Historian, National Park Service, was responsible for developing and coordinating the revision of this Preservation Brief, incorporating professional comments, and the technical editing.

The authors and the editor wish to thank the following for the professional and technical review they provided: Mark Macpherson and Ron Peterson, Masonry Restoration Contractors, Macpherson-Towne Company, Minneapolis, MN; Lorraine Schnabel, Architectural Conservator, John Milner Associates, Inc., Philadelphia, PA; Lauren B. Sickels-Taves, Ph.D., Architectural Conservator, Biohistory International, Huntington Woods, MI; and the following National Park Service professional staff, including: E. Blaine Cliver, Chief, Historic American Buildings Survey/Historic American Engineering Record; Douglas C. Hicks, Deputy Superintendent, Historic Preservation Training Center, Frederick, MD; Chris McGuigan, Supervisory Exhibits Specialist, Historic Preservation Training Center, Frederick, MD; Charles E. Fisher, Sharon C. Park, FAIA, John Sandor, Technical Preservation Services Branch, Heritage Preservation Services, and Kay D. Weeks, Heritage Preservation Services.

The original version of this brief, *Repointing Mortar Joints in Historic Brick Buildings*, was written by Robert C. Mack in 1976, and was revised and updated in 1980 by Robert C. Mack, de Teel Patterson Tiller, and James S. Askins.

This publication has been prepared pursuant to the National Historic Preservation Act of 1966, as amended, which directs the Secretary of the Interior to develop and make available information concerning historic properties. Technical Preservation Services (TPS), National Park Service prepares standards, guidelines, and other educational materials on responsible historic preservation treatments for a broad public.

October 1998

Reading List

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nps.gov

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City of Davenport
Historic Preservation Commission

Department: DNS
Contact Info: Matt Werderitch 563.888.2221

Date
4/13/2021

Subject:

COA21-04 being the request to install a new plaque adjacent to the military tank on Credit Island located at 2200 West River Drive. Timothy Ramsay, petitioner. [Ward 1]

Recommendation:

A recommendation is made to approve the Certificate of Appropriateness to install a plaque adjacent to the military tank on Credit Island per Chapter 14.01.060 of the Davenport Municipal Code.

The project was reviewed for conformance with the Standards for Review, Chapter 14.01.060.C.9 of the Davenport Municipal Code. The Project meets the following standard:

- New additions and related new construction shall not be discouraged when such improvements do not destroy historic material and such design is compatible with the size, massing, scale, color, materials and character of the property, neighborhood, and district.

Background:

A local Boy Scout, Timothy Ramsay, has generously chosen to repaint the military tank on Credit Island as part of his Eagle Scout Service Project. The scope of the project includes repainting the Cold War military tank on the northeast portion of the island as well as donating a bronze plaque to commemorate its history.

Credit Island is a Locally Designated Historic Property; therefore, the installation of a plaque requires a Certificate of Appropriateness. Since the Cold War military tank is not a Locally Designated Historic Landmark, repainting is exempt from Historic Preservation Commission review.

The applicant is donating a 18"H x 16"W x .25"D bronze plaque. The plaque contains the following informational language:

M103 Heavy Tank
(120 mm Gun Combat Tank)

Served the US Army and US Marine Corps
during the Cold War

In Service: 1957-1974
Manufacturer: Chrysler
Number Built: 300
Mass: 65 short tons
Length: 37ft. 2 in.
Width: 12 ft. 2 in.

Height: 10 ft. 6 in.

Crew: 5 (Commander, Gunner, Driver, 2 Loader)

The City of Davenport Parks & Recreation Department will mount the bronze plaque to a boulder, which will be placed adjacent to the military tank. Other sign options were explored, such as mounting the plaque to the tank or to a post. However, it was determined that mounting the plaque to a boulder is consistent with the décor of the park and the most resistant to flooding. This option will also have the least impact to Credit Island's visual character.

ATTACHMENTS:

Type	Description
▣ Backup Material	Application
▣ Backup Material	Background Information
▣ Backup Material	Approval Standards
▣ Backup Material	Article-History of Credit Island

REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Werderitch, Matt	Approved	4/7/2021 - 12:30 PM



Complete application can be emailed to planning@davenportiowa.com

Property Address* 2301 West River Drive, Davenport, IA 52802 - Credit Island
**If no property address, please submit a legal description of the property.*

Applicant (Primary Contact)

Name: Timothy Ramsay
Company:
Address: 2 Cobblestone Lane
City/State/Zip: Le Claire, IA 52753
Phone: 563-396-3455
Email: tim.ramsay05@gmail.com

Application Form Type:

Plan and Zoning Commission

- Zoning Map Amendment (Rezoning) ☐
Planned Unit Development ☐
Zoning Ordinance Text Amendment ☐
Right-of-way or Easement Vacation ☐
Voluntary Annexation ☐

Owner (if different from Applicant)

Name: Davenport Parks + Rec
Company:
Address: 700 W. River Dr.
City/State/Zip: Davenport, IA 52802
Phone: 563-328-7275
Email: contact.us@davenportiowa.com

Zoning Board of Adjustment

- Zoning Appeal ☐
Special Use ☐
Hardship Variance ☐

Design Review Board

- Design Approval ☒
Demolition Request in the Downtown ☐
Demolition Request in the Village of East Davenport ☐

Engineer (if applicable)

Name:
Company:
Address:
City/State/Zip:
Phone:
Email:

Historic Preservation Commission

- Certificate of Appropriateness ☐
Local Landmark Nomination ☐
Demolition Request ☐

Architect (if applicable)

Name:
Company:
Address:
City/State/Zip:
Phone:
Email:

Administrative

- Administrative Exception ☐
Health Services and Congregate Living Permit ☐

Attorney (if applicable)

Name:
Company:
Address:
City/State/Zip:
Phone:
Email:

Major additions and new buildings (all of the above and):

- Reproductions of building or site information found in the historical surveys if applicable
- A verifiable legal description, or a land survey.
- A map showing the existing topography of other properties at two-foot contour intervals, extending one hundred feet from the subject parcel.
- Elevation drawings, in color and drawn to scale, of the front, sides, rear, and roof lines of all proposed buildings or structures, illustrating the appearance and treatment of required screening elements for roof-mounted equipment, where deemed necessary by the development official.
- A materials board containing samples of each type of exterior building materials.

Formal Procedure

(1) Application:

- Prior to submission of the application, the applicant shall correspond with Planning staff to discuss the request, potential alternatives and the process.
- The submission of the application does not constitute official acceptance by the City of Davenport. Planning staff will review the application for completeness and notify the applicant that the application has been accepted or additional information is required. Inaccurate or incomplete applications may result in delay of required public meetings.

(2) Historic Preservation consideration of the request:

- Only work described in the application may be approved by the Commission.
- If the Commission determines there is insufficient information to make a proper judgment on the application, it may continue the application as long a period of 60 days has not elapsed from an accepted application. This time period does not apply if the applicant requests the continuance.

(3) After the Historic Preservation Commission's decision:

- If approved, a certificate of appropriateness does not constitute a City permit or license and does vest against any other land development regulation or regulatory approval. You will need to contact Davenport Public Works and other regulatory agencies regarding permits and/or licenses.
- If approved, a certificate of appropriateness will expire one year from the date of approval unless a building permit is obtained within such period. The Zoning Administrator may grant an extension for a period of validity longer than one year. An applicant may apply in writing for an extension of time at any time prior to the date of expiration.
- The applicant may appeal the Historic Preservation Commission's determination to the City Council. A written appeal along with payment of \$75.00 must be submitted to the Zoning Administrator within thirty calendar days of the Historic Preservation Commission's decision.

Applicant: Timothy Ramsay Date: 4/2/21

By typing your name, you acknowledge and agree to the aforementioned submittal requirements and formal procedure and that you must be present at scheduled meetings.

Received by: _____ Date: _____
Planning staff

Date of the Public Meeting: _____

Meetings are held in City Hall Council Chambers located at 226 West 4th Street, Davenport, Iowa.

Historic Resource:

- ☐ Local Hamburg Historic District
- ☐ Iowa Soldier's Orphans' Historic District
- ☐ Marycrest College Historic District
- ☐ Individually Listed Local Historic Landmark

Not sure if you have a Historic Resource? You can click [here](#) to access the City's GIS Map. Click the layers icon toward the top right of the page. Click the Planning Layers dropdown. Turn the Historic Resources layer on by checking the box.

Historic Resources requiring a Certificate of Appropriateness are mapped with a  or .

If you are unsure, please contact the Community Planning and Economic Development staff at (563) 326-6198 or planning@davenportiowa.com for assistance.

When is a certificate of appropriateness required?

Prior to the commencement of the work.

What type of activity requires the approval of a certificate of appropriateness?

Any activity requiring a building or sign permit, except demolition, that would change the exterior architectural appearance of a structure. Examples include new construction, exterior alterations, relocations, reconstructions and infill development.

Submittal requirements

- Please contact Planning staff at (563) 326-6198 or planning@davenportiowa.com so we can help you determine what exactly is required to be submitted.
- Incomplete applications will not be accepted.

Submittal requirements for all types of requests:

- The completed application form.
- A work plan that accurately and completely describes the work to be done.
- Color digital photographs depicting the building elevations and proposed construction.

Submittal requirements for specific types of requests:**Minor alterations to existing buildings and new and replacement signs (all of the above and):**

- Specifications, including dimensions, material used and color of the material.
- A rendering of the proposed alteration as depicted on the existing building.
- Samples of the materials, including the color, along with scaled, accurately colored elevations for any proposed sign and/or sign package.

Minor additions, site improvements and outdoor storage areas (all of the above and):

- A dimensioned site plan, including the locations of any proposed or existing buildings on the subject parcel and on surrounding parcels.
- A preliminary grading plan showing before and after grades at two-foot contour intervals, where deemed necessary by the development official.
- Outdoor storage areas shall be reflected in the elevation drawings submitted and shall show their relationship to the building elevations as well as the materials and treatment proposed that would accurately reflect the screening of the storage areas.
- A landscape plan.

BRONZE PLAQUE - 18" H X 16" W x 1/4" thick - \$1167.0

M103 Heavy Tank

(120 mm Gun Combat Tank)

Served the US Army and US Marine Corps
during the Cold War.

In Service: 1957-1974

Manufacturer: Chrysler

Number Built: 300

Mass: 65 short tons

Length: 37ft. 2 in

Width: 12 ft. 2 in.

Height: 10 ft. 6 in.

Crew: 5 (Commander, Gunner, Driver, 2 Loader)

Work Plan

Please describe the work being performed. Please note that only work described in the application may be approved by the Board.

My Eagle Project

I would like to paint the M103 Heavy Tank on Credit Island. To preserve the history of the Tank I'd like to add a Boulder with a Bronze Plaque attached. I appreciate your consideration and assistance.

Work needed:

- Boulder
- Boulder placement
- Plaque
- Mounting Plaque

M103 Army Tank at Credit Island



Credit Island

Background:

1. 420 Acre Island in the Mississippi River
2. Battlefield in the War of 1812
3. Locally Designated as a Historic Property on February 3, 1999.

Proposed Eagle Scout Project:

1. Repaint the Cold War Military Tank on Credit Island
2. Install a Plaque Adjacent to the Tank

Historic Preservation Commission Review:

1. Repainting the Tank is Exempt from Review
2. Installation of a Plaque Requires a Certificate of Appropriateness



Military Tank

DAVENPORT
IOWA | USA



Tank located between
two playgrounds on the
northeast portion of the
island.

Proposed Plaque

M103 Heavy Tank

(120 mm Gun Combat Tank)

**Served the US Army and US Marine Corps
during the Cold War.**

In Service: 1957-1974

Manufacturer: Chrysler

Number Built: 300

Mass: 65 short tons

Length: 37ft. 2 in

Width: 12 ft. 2 in.

Height: 10 ft. 6 in.

Crew: 5 (Commander, Gunner, Driver, 2 Loader)

- Material: Bronze
- Plaque Dimensions:
 - Height: 18"
 - Width: 16"
 - Thickness: ¼"
- Mounted to a Boulder
- Placement: Adjacent to Military Tank
- Parks & Recreation Department to provide boulder and determine final placement near military tank.



Proposed Plaque

M103 Heavy Tank

(120 mm Gun Combat Tank)

Served the US Army and US Marine Corps
during the Cold War.

In Service: 1957-1974

Manufacturer: Chrysler

Number Built: 300

Mass: 65 short tons

Length: 37ft. 2 in

Width: 12 ft. 2 in.

Height: 10 ft. 6 in.

Crew: 5 (Commander, Gunner, Driver, 2 Loader)



War of 1812 Memorial on Credit Island
Proposed Plaque to have a similar appearance

Historic Preservation Ordinance

Section 14.01.060 Certificate of Appropriateness Review Process

C. Commission review process - Standards for review. In considering an application for a certificate of appropriateness, the commission shall be guided by the following general standards in addition to any other standards or guidelines established by ordinance for a local landmark or historic district. In all cases, these standards are to be applied in a reasonable manner, taking into full consideration the issue of economic feasibility and other technical considerations.

1. Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration; and
2. The removal, alteration or concealing of distinguishing exterior architectural features and historic material of a designated property should be avoided when possible; and
3. All designated property shall be recognized as a product and physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural architectural features shall be discouraged; and
4. Most properties change over time, and those changes that have acquired architectural and/or historical significance in their own right shall be recognized, respected and retained; and
5. Distinctive architectural features, construction techniques and/or examples of craftsmanship that characterize a designated property shall be treated with due consideration; and
6. Deteriorated architectural features should, where possible, be repaired rather than replaced. Where the severity of deterioration requires replacement, the new feature shall match the old in design, color, texture and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical or pictorial evidence; and
7. Activities that cause deterioration of a designated property and its architectural features shall be discouraged. In those cases where the damage would be irreversible, such as sand-blasting and wet blasting fire-hardened bricks, the activities shall be prohibited. If cleaning is to be done, the gentlest means possible shall be encouraged; and
8. Known significant archeological resources possibly affected by a proposed activity shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken; and
9. New additions and related new construction shall not be discouraged when such improvements do not destroy historic material and such design is compatible with the size, massing, scale, color, materials and character of the property, neighborhood and district, if applicable.



Credit Island Battlefield and the War of 1812

📍 History

🕒 Wednesday Aug 17, 2016

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Did you know one of the battles of the War of 1812 broke out in Iowa?

Don't worry if you didn't. Most other folks don't, either – which is why the City of Davenport commissioned an investigator to literally dig up the story. With a grant from the National Park Service, Christopher Espenshade conducted an extensive historical and archaeological study of the city's 420-acre Credit Island and published [his results and recommendations](#) in 2013.

Here's the story his evidence revealed, which he'll explain during a guided tour of the site during the [Preserve Iowa Summit](#) slated for Sept. 15-17 . . .

When the United States bought the vast Louisiana Territory from France in 1804, St. Louis was the northernmost city on the Mississippi River. The rest of the Upper Mississippi had been left to Native Americans and a few frontier trappers and traders.



The federal government tried to gain a foothold in the area by building Fort Madison in 1808, but the fort was frequently attacked by Sauk and related tribes. Soldiers abandoned the fort after a siege in the summer of 1813.

The government gave it another go in 1814 by building Fort Shelby in modern-day Prairie du Chien, Wis., but the British took it over just a few months later. American troops tried to reclaim it, using three armored keelboats, but one ran aground in modern-day East Moline, Ill., where Sauk Chief Black Hawk's 400 warriors torched it and forced another retreat.

So the U.S. government tried yet again, this time with a flotilla led by future president Zachary Taylor. When his initial plan to take eight gunboats up the Rock River fell through, they re-routed north on the Mississippi toward Prairie du Chien. But they didn't get very far.



"The Americans had just begun this upstream move on the afternoon of September 4, when a strong storm blowing downstream forced the Americans to stop for the night at Pelican Island" just to the north of Credit Island, according to Espenshade's report. "At first light on September 5, a number of Native Americans had waded to Pelican Island from Credit Island, and an American sentry was shot and killed."

From there, the Americans cleared the Native Americans from Pelican Island while British troops moved in to attack the American boats. The British barrage continued for 45 to 60 minutes before Taylor ordered a retreat downstream.

In all, 800 to 1,200 Native Americans and just 20 to 30 British soldiers successfully repelled Taylor's 334 troops. The Americans didn't gain control of the Upper Mississippi until after the war ended the following year.

So that's the general history. But just how investigator Espenshade put together the battle's actual play-by-play is a story in itself.



He interviewed local historians, teamed up with metal-detector specialists, dug through archives, and employed a special form of military terrain analysis known as KOCO A, which involves Key or decisive terrain, Observation and field of fire, Cover and concealment, Obstacles, and Avenues of approach and withdrawal. Finally, he reconciled all of these new layers of information into a final narrative.

Once, when he explained his job to a class of fifth graders, he asked a volunteer to think about a snowball fight.

"How accurately could the student describe a snowball fight between just two combatants, in a small side yard of the school, lasting only five minutes, and limited to three snowballs for each?" he wrote in his report. "From that starting point, I then began elaborating, to get closer to a military situation. The forces were increased to hundreds or thousands. The landscape was one with which the participants were unfamiliar. The snowballs were actually replaced by artillery and small arms, and the battlefield was enshrouded in trees, fog, and gun smoke. The observers would not be allowed to prepare their reports until a week or two after the battle. The integrity and career advancement of the observer might be affected by what he reported. The battle would be one of dozens fought in the past few weeks, and the observer is likely sleep-deprived, poorly nourished, and possibly wounded. I asked the fifth graders what they thought would happen to the truth as all these factors were added into the mix. How could you possibly know what really happened?"

So what *really* happened at the Battle of Credit Island? All we can do is make an educated guess. But thanks to the new research, it's a better-educated guess than ever before.

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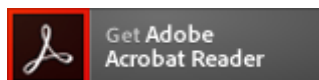
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IOWA DEPARTMENT OF
CULTURAL AFFAIRS

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City of Davenport
Historic Preservation Commission

Department: DNS
Contact Info: Matt Werderitch 563.888.2221

Date
4/13/2021

Subject:

Case COA21-05: Installation of a new roof at 417 West 7th Street. The home is listed as a contributing structure in the Hamburg Local Landmark Historic District. Maria Klein of Green Valley Construction Inc. on behalf of Ryan Slattery, petitioner. [Ward 3]

Recommendation:

A recommendation is made to approve the Certificate of Appropriateness to install a new roof at 417 West 7th Street in accordance with the submitted material.

The project was reviewed for conformance with the Standards for Review, Chapter 14.01.060C of the Davenport Municipal Code. The project meets the following standards:

- Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration.
- Deteriorated architectural features should, where possible, be repaired rather than replaced. Where the severity of deterioration requires replacement, the new feature shall match the old in design, color, texture and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical or pictorial evidence.

Background:

The applicant is proposing to replace the existing grey asphalt architectural shingle roof on the home at 417 West 7th Street. The front entrance awning and rear addition are excluded from the scope of the project. The existing roof is not original to the structure.

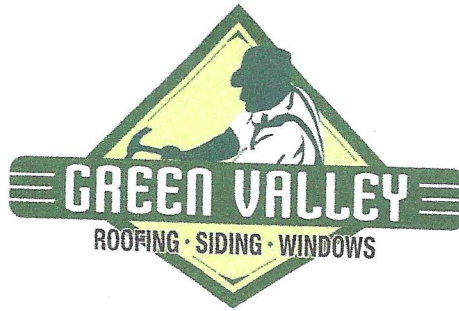
The proposed roof material is Owens Corning Duration Colonial Slate Architectural Asphalt Shingle. The proposed color will not be a perfect match to the existing shingle. However, the new grey roof is considered to be in the same color family of grey.

ATTACHMENTS:

Type	Description
▢ Backup Material	Application
▢ Backup Material	Email Correspondence
▢ Backup Material	Shingle Specification
▢ Backup Material	Shingle Example
▢ Backup Material	Background Material
▢ Backup Material	Approval Standards

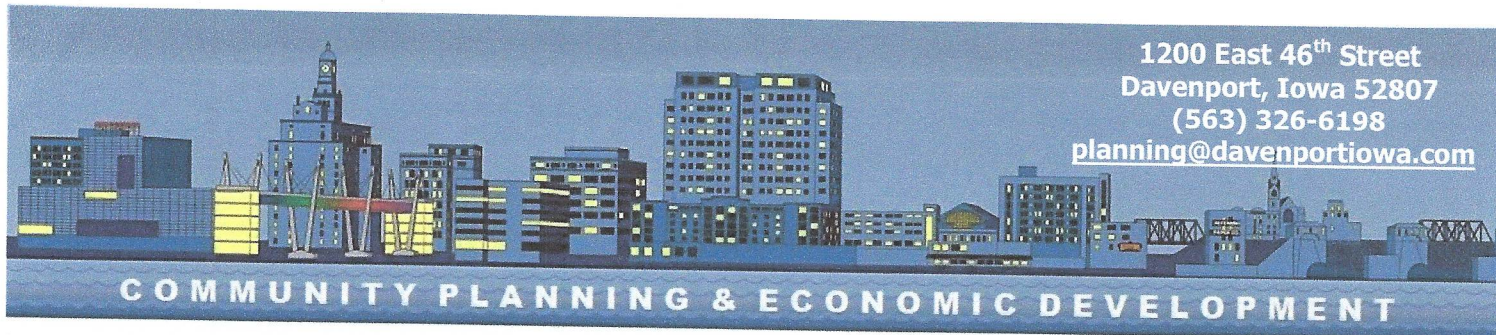
REVIEWERS:

Department	Reviewer	Action	Date
Community Planning & Economic Development	Werderitch, Matt	Approved	4/9/2021 - 8:38 AM



To: City of Daw. ^{Historic} Preservation Commission From: Maria Klein
email: planning@davenportiowa.com Pages: 8 (including cover page)
Fax # _____
Phone: _____ Date: 4/8/2021
Re: _____
CC: _____
Comments: Thank you

_____.



1200 East 46th Street
Davenport, Iowa 52807
(563) 326-6198
planning@davenportiowa.com

Complete application can be emailed to planning@davenportiowa.com

Property Address* 417 W. 7th Street Davenport, IA 52803

*If no property address, please submit a legal description of the property.

Applicant (Primary Contact)

Name: Maria Klein - office manager
Company: Green Valley Construction Inc.
Address: 3412 State Street
City/State/Zip: Bettendorf, IA 52722
Phone: 563-322-2044
Email: maria@greenvalleyroofing.com

Application Form Type:

Plan and Zoning Commission

Zoning Map Amendment (Rezoning) ☐
Planned Unit Development ☐
Zoning Ordinance Text Amendment ☐
Right-of-way or Easement Vacation ☐
Voluntary Annexation ☐

Owner (if different from Applicant)

Name: Ryan Slattery
Company:
Address: 417 W. 7th Street
City/State/Zip: Davenport, IA 52803
Phone: 563-676-4502
Email:

Zoning Board of Adjustment

Zoning Appeal ☐
Special Use ☐
Hardship Variance ☐

Design Review Board

Design Approval ☐
Demolition Request in the Downtown ☐
Demolition Request in the Village of East Davenport ☐

Engineer (if applicable)

Name:
Company:
Address:
City/State/Zip:
Phone:
Email:

Historic Preservation Commission

Certificate of Appropriateness ☒
Local Landmark Nomination ☐
Demolition Request ☐

Architect (if applicable)

Name:
Company:
Address:
City/State/Zip:
Phone:
Email:

Administrative

Administrative Exception ☐
Health Services and Congregate ☐
Living Permit ☐

Attorney (if applicable)

Name:
Company:
Address:
City/State/Zip:
Phone:
Email:

Historic Resource:

- ☒ Local Hamburg Historic District
- ☐ Iowa Soldier's Orphans' Historic District
- ☐ Marycrest College Historic District
- ☐ Individually Listed Local Historic Landmark

Not sure if you have a Historic Resource? You can click [here](#) to access the City's GIS Map. Click the layers icon toward the top right of the page. Click the Planning Layers dropdown. Turn the Historic Resources layer on by checking the box.

Historic Resources requiring a Certificate of Appropriateness are mapped with a  or .

If you are unsure, please contact the Community Planning and Economic Development staff at (563) 326-6198 or planning@davenportiowa.com for assistance.

When is a certificate of appropriateness required?

Prior to the commencement of the work.

What type of activity requires the approval of a certificate of appropriateness?

Any activity requiring a building or sign permit, except demolition, that would change the exterior architectural appearance of a structure. Examples include new construction, exterior alterations, relocations, reconstructions and infill development.

Submittal requirements

- Please contact Planning staff at (563) 326-6198 or planning@davenportiowa.com so we can help you determine what exactly is required to be submitted.
- Incomplete applications will not be accepted.

Submittal requirements for all types of requests:

- The completed application form.
- A work plan that accurately and completely describes the work to be done.
- Color digital photographs depicting the building elevations and proposed construction.

Submittal requirements for specific types of requests:

Minor alterations to existing buildings and new and replacement signs (all of the above and):

- Specifications, including dimensions, material used and color of the material.
- A rendering of the proposed alteration as depicted on the existing building.
- Samples of the materials, including the color, along with scaled, accurately colored elevations for any proposed sign and/or sign package.

Minor additions, site improvements and outdoor storage areas (all of the above and):

- A dimensioned site plan, including the locations of any proposed or existing buildings on the subject parcel and on surrounding parcels.
- A preliminary grading plan showing before and after grades at two-foot contour intervals, where deemed necessary by the development official.
- Outdoor storage areas shall be reflected in the elevation drawings submitted and shall show their relationship to the building elevations as well as the materials and treatment proposed that would accurately reflect the screening of the storage areas.
- A landscape plan.

Major additions and new buildings (all of the above and):

- Reproductions of building or site information found in the historical surveys if applicable
- A verifiable legal description, or a land survey.
- A map showing the existing topography of other properties at two-foot contour intervals, extending one hundred feet from the subject parcel.
- Elevation drawings, in color and drawn to scale, of the front, sides, rear, and roof lines of all proposed buildings or structures, illustrating the appearance and treatment of required screening elements for roof-mounted equipment, where deemed necessary by the development official.
- A materials board containing samples of each type of exterior building materials.

Formal Procedure

(1) Application:

- Prior to submission of the application, the applicant shall correspond with Planning staff to discuss the request, potential alternatives and the process.
- The submission of the application does not constitute official acceptance by the City of Davenport. Planning staff will review the application for completeness and notify the applicant that the application has been accepted or additional information is required. Inaccurate or incomplete applications may result in delay of required public meetings.

(2) Historic Preservation consideration of the request:

- Only work described in the application may be approved by the Commission.
- If the Commission determines there is insufficient information to make a proper judgment on the application, it may continue the application as long a period of 60 days has not elapsed from an accepted application. This time period does not apply if the applicant requests the continuance.

(3) After the Historic Preservation Commission's decision:

- If approved, a certificate of appropriateness does not constitute a City permit or license and does vest against any other land development regulation or regulatory approval. You will need to contact Davenport Public Works and other regulatory agencies regarding permits and/or licenses.
- If approved, a certificate of appropriateness will expire one year from the date of approval unless a building permit is obtained within such period. The Zoning Administrator may grant an extension for a period of validity longer than one year. An applicant may apply in writing for an extension of time at any time prior to the date of expiration.
- The applicant may appeal the Historic Preservation Commission's determination to the City Council. A written appeal along with payment of \$75.00 must be submitted to the Zoning Administrator within thirty calendar days of the Historic Preservation Commission's decision.

Applicant: Maia L. Klein - Office Manager Date: 4/8/2021

By typing your name, you acknowledge and agree to the aforementioned submittal requirements and formal procedure and that you must be present at scheduled meetings.

Received by: _____ Date: _____
Planning staff

Date of the Public Meeting: _____

Meetings are held in City Hall Council Chambers located at 226 West 4th Street, Davenport, Iowa.

Work Plan

Please describe the work being performed. Please note that only work described in the application may be approved by the Board.

Remove existing roofing materials on house, excluding the front entrance awning and rear addition.
Install Owens Corning Duration Colonial Slate architectural asphalt shingles.







Reply Reply All Forward



rhiannon greenvallyroofing.com <rhiannon@greenvallyroofing.com>

Werderitch, Matt

2

Thu 12:03 PM

Re: [EXT] Re: 417 W 7th Street

You replied to this message on 4/8/2021 1:28 PM.

If there are problems with how this message is displayed, click here to view it in a web browser.



Bing Maps

+ Get more apps

Please address the following questions and comments:

1. Is the existing roof original to the home? **No**
2. What is the material of the existing roof that is being replaced? **Asphalt shingles**
3. Is the owner replacing Owens Corning Duration Colonial Slate Architectural Asphalt Shingle with Owens Corning Duration Colonial Slate Architectural Asphalt Shingle? **The new roof will not be the same color. It will be in the same color family of grey. The current roof is an asphalt architectural shingle in grey I have no idea what brand or actual color name is other than it is grey.**
4. Indicate the color of the proposed roofing material. **Colonial Slate (I have attached a picture of the color.) It should look very nice with the color of the house.**
5. Are there any product specifications that you can provide? **I have attached a picture of the specs**

I have not done this in a few years. Do I need to be at the meeting? If so, where is it and what time? Please let me know if you need anything more.

Green Valley invites you to check out the [links](#) provided below to see what our customers have to say about us:

[Green Valley's Story \(\(VIDEO\)\)](#)

[Facebook](#)

[Green Valley on Angies' List](#)

[Green Valley on BBB](#)

Rhiannon Tucker

Office Manager, Green Valley Construction, Inc.

[GreenValleyRoofing.com](#)

Showroom: 3412 State St. Bettendorf, IA - 563.322.2044 | fax:

563.322.0224 | Moline, IL: 309.762.2044

ENERGY STAR® IS FOR ROOFS TOO



Similar to the energy-efficient appliances in your home, roofing products can help provide energy-saving qualities. Owens Corning® ENERGY STAR® qualified shingles can help reduce your heating and cooling bills when installed properly. These shingles reflect solar energy, helping to decrease the amount of heat transferred to a home's interior — and the amount of air conditioning needed to keep it comfortable. Actual savings will vary based on geographic location and individual building characteristics. Call 1-800-GET-PINK® or 1-888-STAR-YES for more information.

Product Attributes

Warranty Length*

Limited Lifetime** (for as long as you own your home)

Wind Resistance Limited Warranty*

130 MPH

Algae Resistance Limited Warranty*

10 Years

TRU PROtection® Non-Prorated Limited Warranty* Period

10 Years



TruDefinition® Duration® Shingles Product Specifications

Size	13 1/4" x 39 3/8"
Application Exposure	5 5/8"
Shingles per Bundle	Not less than 20
Average Shingle Count per 3 Bundles	64
Average Coverage per 3 Bundles	98.4 sq. ft.

Applicable Standards and Codes

ASTM D228

ASTM D3018 (Type 1)

ASTM D3161 (Class F Wind Resistance)

ASTM D3462

ASTM D7158 (Class H Wind Resistance)

ASTM E108/UL 790 (Class A Fire Resistance)

ICC-ES AC438*

PRI ER 1378E01

Shasta White color meets ENERGY STAR® requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15; 2013 California Building Energy Efficiency Standards, Title 24, Part 6 requirements; rated by the Cool Roof Rating Council (CRRCC).

* See actual warranty for complete details, limitations and requirements.

** 2018 Roofing Brand Awareness Study by Owens Corning Roofing and Asphalt, LLC.

† Owens Corning Roofing strives to accurately reproduce photographs of shingles. Due to manufacturing variances, the limitations of the printing process and the variations in natural lighting, actual shingle colors and granule blends may vary from the photo. The pitch of your roof can also impact how a shingle looks on your home. We suggest that you view a roofing display or several shingles to get a better idea of the actual color. To accurately judge your shingle and color choice, we recommend that you view it on an actual roof with a pitch similar to your own roof prior to making your final selection. Color availability subject to change without notice. Ask your professional roofing contractor for samples of colors available in your area.

+ The amount of Triple Layer Protection® may vary on shingle-to-shingle basis.

‡ Tru-Bond® is a proprietary premium weathering-grade asphalt sealant that is blended by Owens Corning Roofing and Asphalt, LLC.

40-Year Limited Warranty on commercial projects.

Owens Corning Roofing Preferred Contractors are independent contractors and are not an affiliate of Owens Corning Roofing and Asphalt, LLC, or its affiliated companies.

For patent information, please visit www.owenscorning.com/patents.

SureNail® Technology is not a guarantee of performance in all weather conditions.

SureNail® Technology is available only on Owens Corning® Duration® Series Shingles.

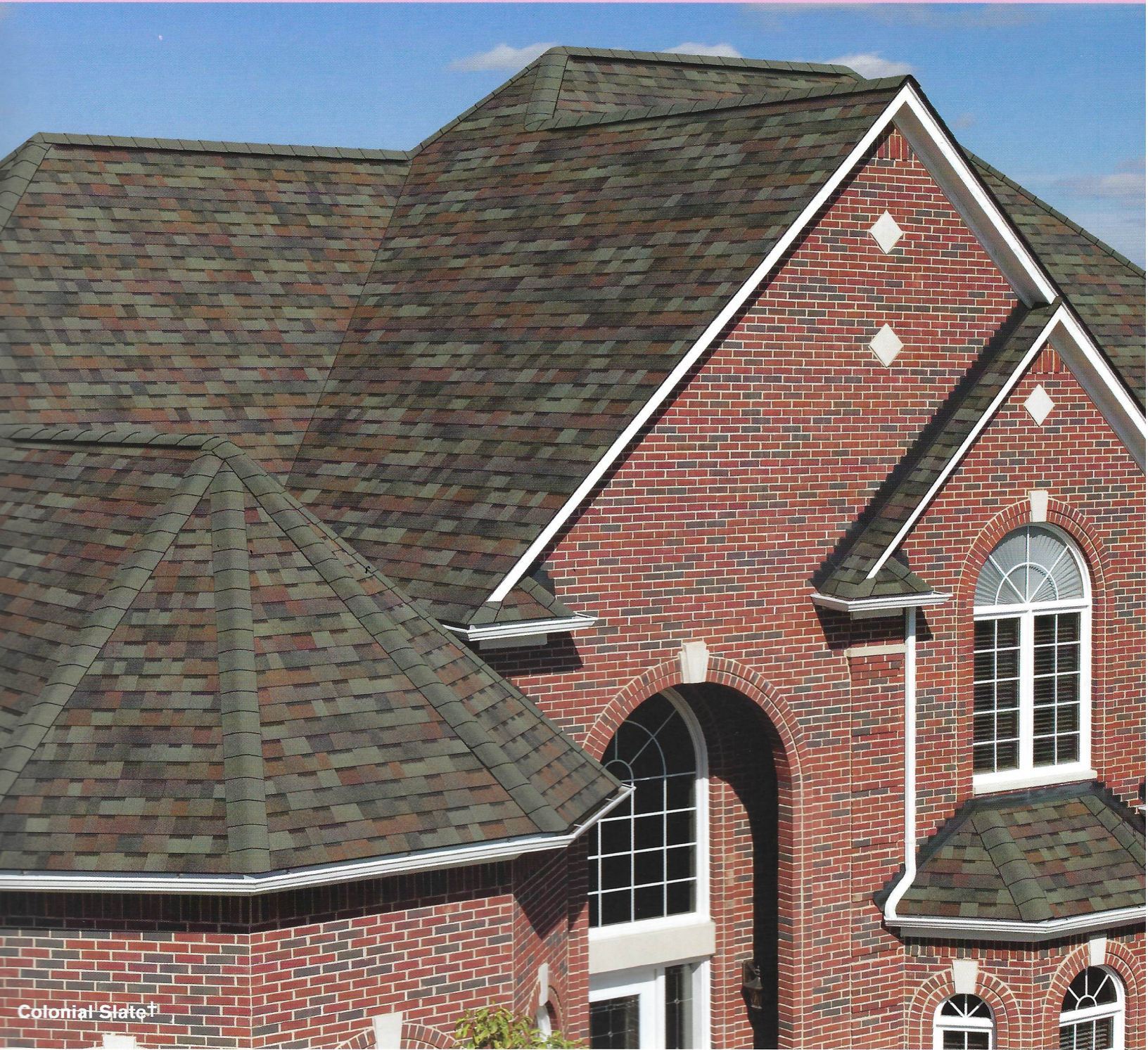
ENERGY STAR and the ENERGY STAR mark are registered trademarks of the U.S. Environmental Protection Agency.

International Code Council Evaluation Services Acceptance Criteria for Alternative Asphalt Shingles.

^ Excludes non-Owens Corning® roofing products such as flashing, fasteners, pipe boots and wood decking.



TruDefinition®
DURATION®
Shingles with Patented SureNail® Technology



Colonial Slate†



TOTAL PROTECTION. TOTAL CONFIDENCE.®



SEAL.



DEFEND.



BREATHE.

Project Scope

1. Install a new roof on the home. (Excluding the front entrance awning and rear addition.)
2. **Existing Roof:** Grey Asphalt Architectural Shingle.
Existing roof is not original to the home.
3. **Proposed Roof:** Owens Corning Duration Colonial Slate Architectural Asphalt Shingles.



Roof Installation

The new roof will be the same material as the existing.

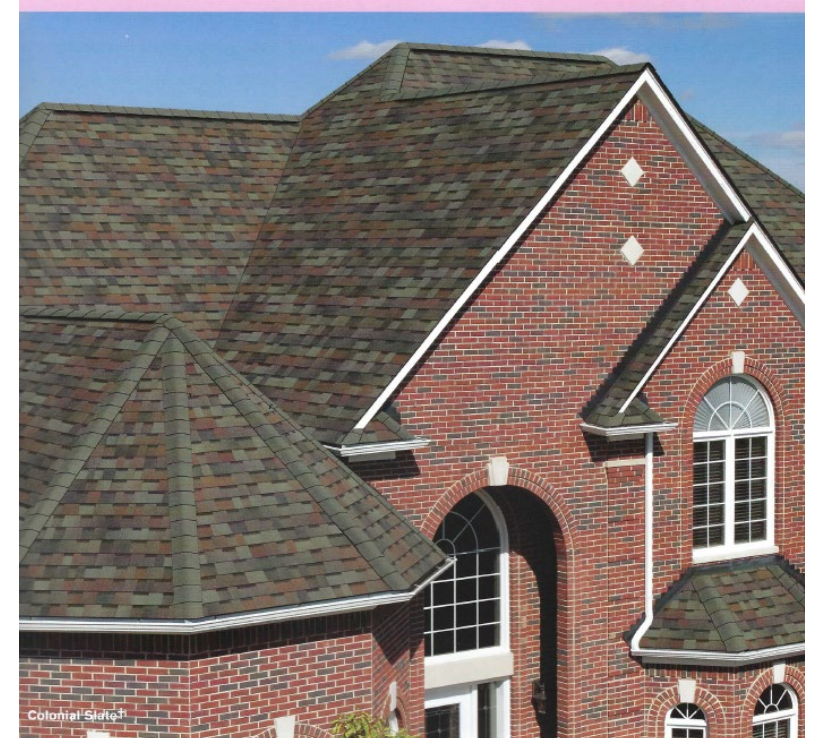
The new roof will not be the same color, but it will be in the same color family of grey.



Existing Roof

DAVENPORT
IOWA | USA

OWENS CORNING TruDefinition®
DURATION®
Shingles with Patented SureNail® Technology



TOTAL PROTECTION
ROOFING SYSTEM

TOTAL PROTECTION. TOTAL CONFIDENCE.
SEAL. DEFEND. BREATHE.

Proposed Roof

Historic Preservation Ordinance

Section 14.01.060 Certificate of Appropriateness Review Process

C. Commission review process - Standards for review. In considering an application for a certificate of appropriateness, the commission shall be guided by the following general standards in addition to any other standards or guidelines established by ordinance for a local landmark or historic district. In all cases, these standards are to be applied in a reasonable manner, taking into full consideration the issue of economic feasibility and other technical considerations.

1. Every reasonable effort shall be made to make the minimal number of changes necessary to maintain a designated property in a good state of repair, thereby minimizing the impact of the proposed alteration; and
2. The removal, alteration or concealing of distinguishing exterior architectural features and historic material of a designated property should be avoided when possible; and
3. All designated property shall be recognized as a product and physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural architectural features shall be discouraged; and
4. Most properties change over time, and those changes that have acquired architectural and/or historical significance in their own right shall be recognized, respected and retained; and
5. Distinctive architectural features, construction techniques and/or examples of craftsmanship that characterize a designated property shall be treated with due consideration; and
6. Deteriorated architectural features should, where possible, be repaired rather than replaced. Where the severity of deterioration requires replacement, the new feature shall match the old in design, color, texture and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical or pictorial evidence; and
7. Activities that cause deterioration of a designated property and its architectural features shall be discouraged. In those cases where the damage would be irreversible, such as sand-blasting and wet blasting fire-hardened bricks, the activities shall be prohibited. If cleaning is to be done, the gentlest means possible shall be encouraged; and
8. Known significant archeological resources possibly affected by a proposed activity shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken; and
9. New additions and related new construction shall not be discouraged when such improvements do not destroy historic material and such design is compatible with the size, massing, scale, color, materials and character of the property, neighborhood and district, if applicable.