



# SAN FRANCISCO PLANNING DEPARTMENT

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## Certificate of Appropriateness Case Report

HEARING DATE: SEPTEMBER 18, 2019

*Filing Date:* August 24, 2018  
*Case No.:* 2018-009078COA  
*Project Address:* 2622 JACKSON STREET  
*Historic Landmark:* No. 203 – George Gibbs Residence and Caretaker's Cottage  
*Zoning:* RH-2 (Residential-House, Two Family)  
40-X Height and Bulk District  
*Block/Lot:* 0585 / 008  
*Applicant:* Dave Sturm  
Butler Armsden Architects  
1420 Sutter Street, First Floor  
San Francisco, CA 94109  
*Staff Contact* Shannon Ferguson – (415) 575-9074  
Shannon.ferguson@sfgov.org  
*Reviewed By* Elizabeth Gordon-Jonckheer – (415) 575-8728  
Elizabeth.Gordon-Jonckheer@sfgov.org

1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

Reception:  
**415.558.6378**

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

### PROPERTY DESCRIPTION

**2622 JACKSON STREET**, also known as the George Gibbs Residence and Caretaker's Cottage, is located on the north side of Jackson Street between Scott Street and Pierce Street, on Assessor's Block 0585, Lot 008. The Italian Renaissance Revival style house was designed by Willis Polk and constructed in 1895. It was designated as City Landmark No. 203 in August 1993.

### PROJECT DESCRIPTION

The proposed project includes exterior alterations to the property, including façade restoration at all elevations, selective window replacement at all elevations, and the replacement of a portion of the front retaining wall. Specifically, the proposal includes:

- Façade restoration at all elevations of the property, including the following:
  - Limited in-kind replacement of deteriorated sandstone façade cladding and portico elements, where stone units are deteriorated beyond repair with new sandstone units;
  - Limited in-kind Dutchman repair of deteriorated portions of sandstone façade cladding and portico elements with new sandstone;
  - Pinning and microgrouting of delaminated sandstone façade cladding units;
  - Patching with a mortar repair product of smaller areas of the sandstone façade cladding and portico elements requiring repair;
  - Repair of cracks in the stone façade cladding and portico elements with lime grout for hairline cracks and scissor pinning for larger cracks;
  - Repointing of deteriorated mortar joints;

- Replacement of a portion of the front retaining wall with new stone clad and capped wall to match existing retaining wall
- Selective in-kind replacement of 19 existing wood windows with new wood windows.

Please see photographs and plans for details.

## OTHER ACTIONS REQUIRED

None.

## COMPLIANCE WITH THE PLANNING CODE PROVISIONS

The proposed project is in compliance with all other provisions of the Planning Code.

## APPLICABLE PRESERVATION STANDARDS

### ARTICLE 10

Pursuant to Section 1006.2 of the Planning Code, unless exempt from the Certificate of Appropriateness requirements or delegated to Planning Department Preservation staff through the Administrative Certificate Appropriateness process, the Historic Preservation Commission is required to review any applications for the construction, alteration, removal, or demolition of any designated Landmark for which a City permit is required. Section 1006.6 states that in evaluating a request for a Certificate of Appropriateness for an individual landmark or a contributing building within a historic district, the Historic Preservation Commission must find that the proposed work is in compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, as well as the designating Ordinance and any applicable guidelines, local interpretations, bulletins, related appendices, or other policies.

### THE SECRETARY OF THE INTERIOR'S STANDARDS

Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The Rehabilitation Standards provide, in relevant part(s):

**Standard 1:** A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

*The proposed project does not involve a change in use of the property. Therefore, the proposed project complies with Rehabilitation Standard 1.*

**Standard 2:** The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

*The proposed project will retain the historic character of the property and will not remove any historic materials or features that characterize the property. The historic stone material will be retained and repaired. Where deterioration of historic materials is severe, such as missing stone or*

*windows beyond repair, the materials will be replaced in kind. Therefore, the proposed project complies with Rehabilitation Standard 2.*

**Standard 3:** Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

*The proposed project does not include the addition of conjectural elements or architectural features from other buildings. The new work would not create a false sense of historical development and will be compatible with the landmark site. Therefore, the proposed project complies with Rehabilitation Standard 3.*

**Standard 4:** Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

*The proposed project does not involve alterations to changes that have acquired significance in their own right. The proposed project will remove previous repairs that are incompatible, such as those using Portland cement, and will repair the deteriorated stone with more compatible materials. These repairs have not acquired significance. Therefore, the proposed project complies with Rehabilitation Standard 4.*

**Standard 5:** Distinctive features, finishes, and construction techniques or examples of fine craftsmanship that characterize a property will be preserved.

*The proposed project does not call for changes to or removal of the subject property's distinctive features or finishes. The proposed project will repair deteriorated features in order to retain and preserve the examples of fine craftsmanship that characterize the property. Therefore, the proposed project complies with Rehabilitation Standard 5.*

**Standard 6:** Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacements of a distinctive feature, the new feature will 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.

*The proposed project will repair deteriorated historic features. Where historic features are missing or deteriorated beyond repair, the replacement materials will match the old in design, color and materials and the replacement feature will be based on documentary evidence.*

*The stone will be repaired using stainless steel pins to anchor areas of stone that are detaching. Microgrouting will be used to inject hydraulic lime in stone that are delaminating or cracking. The existing historic stone exhibits diversity of color. The proposed work will repair hairline cracks in the historic stone with compatible mortar color matched specifically to the ashlar masonry and the decorative carved stone elements. Where stone is missing or severely deteriorated*

*so that it requires complete replacement, such as Column 3 at the portico, the feature will be removed with care to avoid damage to adjacent features. Replacement units will be of a compatible color texture and composition and carved to match the original design from templates made from adjacent masonry. New units will be installed using a Dutchman repair and mortar will match the existing in color and texture. Mortar joints will be repointed with mortar that matches the existing in color and texture.*

*Selected windows are proposed for replacement. A window and door assessment concluded that 19 of the existing windows are in poor condition and show significant deterioration and signs of failure. Nine of the existing windows proposed for replacement are historic windows. The new windows will match the old windows in operation, materials and profile. Remaining windows and frames will be patched, consolidated or spliced using new wood to match existing, and waterproofed.*

*Therefore, the proposed project complies with Rehabilitation Standard 6.*

**Standard 7:** Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

*The proposed project does not involve chemical or physical treatments that will affect the building's historic materials. The stone masonry will be cleaned using the gentlest means possible. In order to determine the gentlest cleaning method, test panels of ashlar masonry units as well as decorative units were cleaned at the south elevation in October 2018 using superheated water at a low pressure and in some cases a soft bristled nylon brush to remove biological growth and general soiling. This method of cleaning resulted in no loss of material and retained the patina and historic integrity of the stone and will be used to clean all elevations. Therefore, the proposed project complies with Rehabilitation Standard 7.*

**Standard 8:** Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures will be undertaken.

*The proposed project does not involve any excavation work. Therefore, the proposed project complies with Rehabilitation Standard 8.*

**Standard 9:** New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

*The proposed project will not destroy historic materials, features, or spatial relationships that characterize the property. Although new stone units using Dutchman repairs will be visible, and therefore differentiated from the surrounding stone due to the lack of patina and weathering, the*



*Dutchman repairs will be compatible in materials, size, scale, and proportion with the non-weathered stone. Over time and through the weathering process and environmental conditions, the visual qualities of the new stone will become more compatible to the historic weathered stone.*

*The proposed retaining wall will be compatible with the existing retaining walls. It will match the height of the existing retaining wall and will be clad in stone and topped with a stone cap that will be compatible with the materials and features of existing retaining walls.*

*Therefore, the proposed project complies with Rehabilitation Standard 9.*

**Standard 10:** New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

*The proposed project would not affect the essential form and integrity of the building. Therefore, the proposed project complies with Rehabilitation Standard 10.*

## PUBLIC/NEIGHBORHOOD INPUT

To date, the Department has received no public input on the project at the date of this report.

## STAFF ANALYSIS

Included as an exhibit are architectural drawings of the existing building and the proposed project. Based on the requirements of Article 10 and the Secretary of Interior's Standards, Department staff has determined that the proposed project does not involve a change in use of the subject property and would not remove any character-defining features from the building. The historic stone material will be retained and repaired. Where deterioration of historic materials is severe, the materials will be replaced to match the materials, color, features and visual qualities of the existing.

Department staff finds that the proposed work will be in conformance with the Secretary's Standards and requirements of Article 10, and that the proposed work is compatible with the character-defining features of the landmark site.

## ENVIRONMENTAL REVIEW STATUS

The Planning Department has determined that the proposed project is exempt/excluded from environmental review, pursuant to CEQA Guideline Section 15301 (Class One-Minor Alteration of Existing facility) because the project is a minor alteration of an existing structure and meets the *Secretary of the Interior's Standards*.

## PLANNING DEPARTMENT RECOMMENDATION

Planning Department staff recommends APPROVAL WITH CONDITIONS of the proposed project as it appears to meet the *Secretary of the Interior's Standards for Rehabilitation*.

## CONDITIONS

1. The project sponsor shall accommodate regular site visits with Department preservation staff to verify ongoing compliance with the approved project description and conditions of approval.
2. In addition to regular site visits, mockups of repairs and/or replacement materials shall be provided prior to completion of work for Planning Department review and approval.

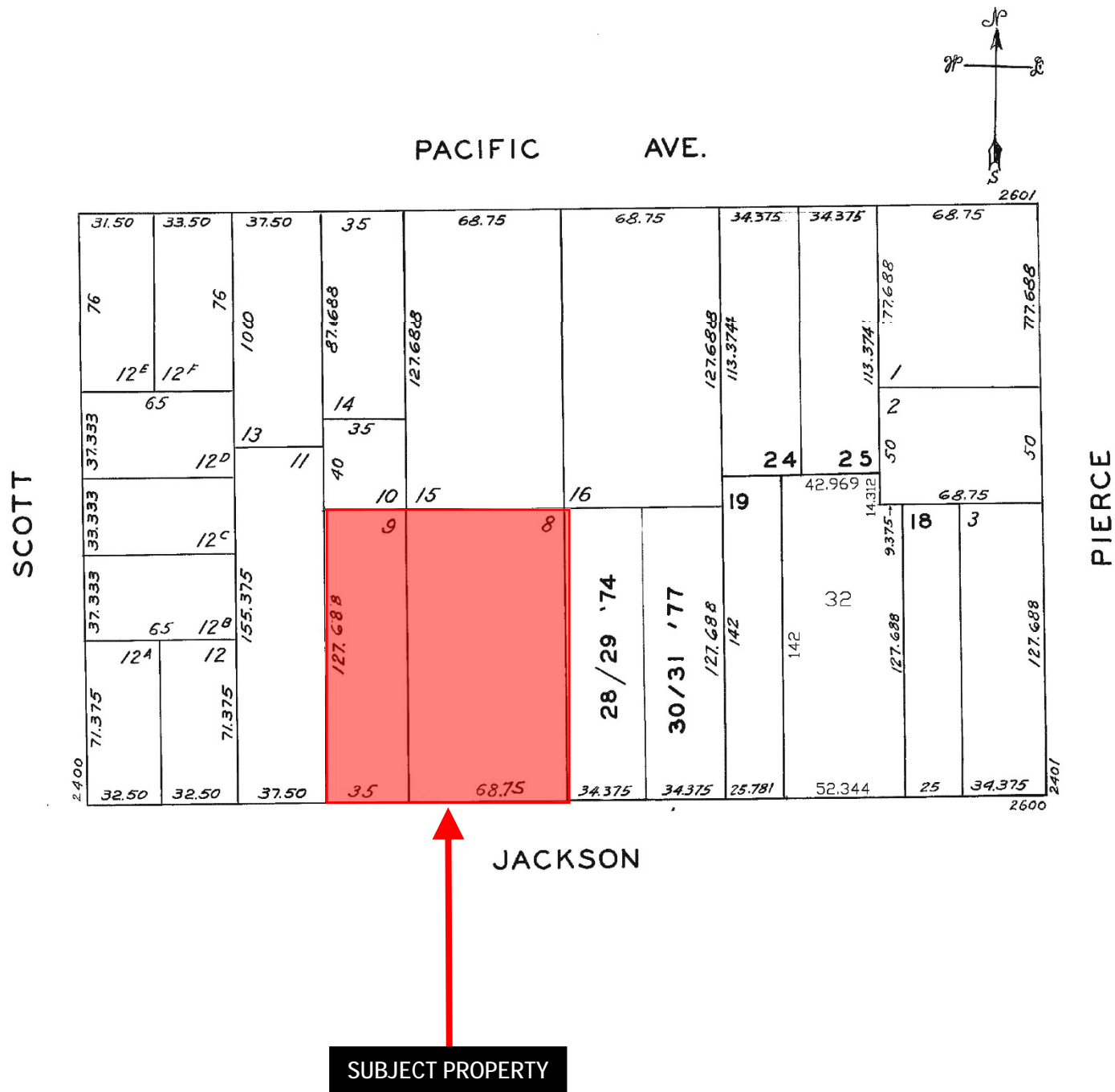
## ATTACHMENTS

Draft Motion

Project Sponsor submittal, including:

- Certificate of Appropriateness Application
- Exterior Stone Restoration report
- Hairline Crack Repair Mortar Color Matching report
- Window and Door Assessment
- Structural Engineer letter
- Materials Sheet
- Reduced Drawings and Renderings (Exhibit A)

# Parcel Map



Certificate of Appropriateness  
Case Number 2018-009078COA  
2622 Jackson Street

SAN FRANCISCO  
**PLANNING DEPARTMENT**

# Aerial Photograph



SUBJECT PROPERTY



Certificate of Appropriateness  
Case Number 2018-009078COA  
2622 Jackson Street

# Zoning Map



SUBJECT PROPERTY



Certificate of Appropriateness  
Case Number 2018-009078COA  
2622 Jackson Street



# Site Photo



Certificate of Appropriateness  
Case Number 2018-009078COA  
2622 Jackson Street



# Site Photo



Retaining wall to be  
replaced to match  
existing adjacent  
retaining wall

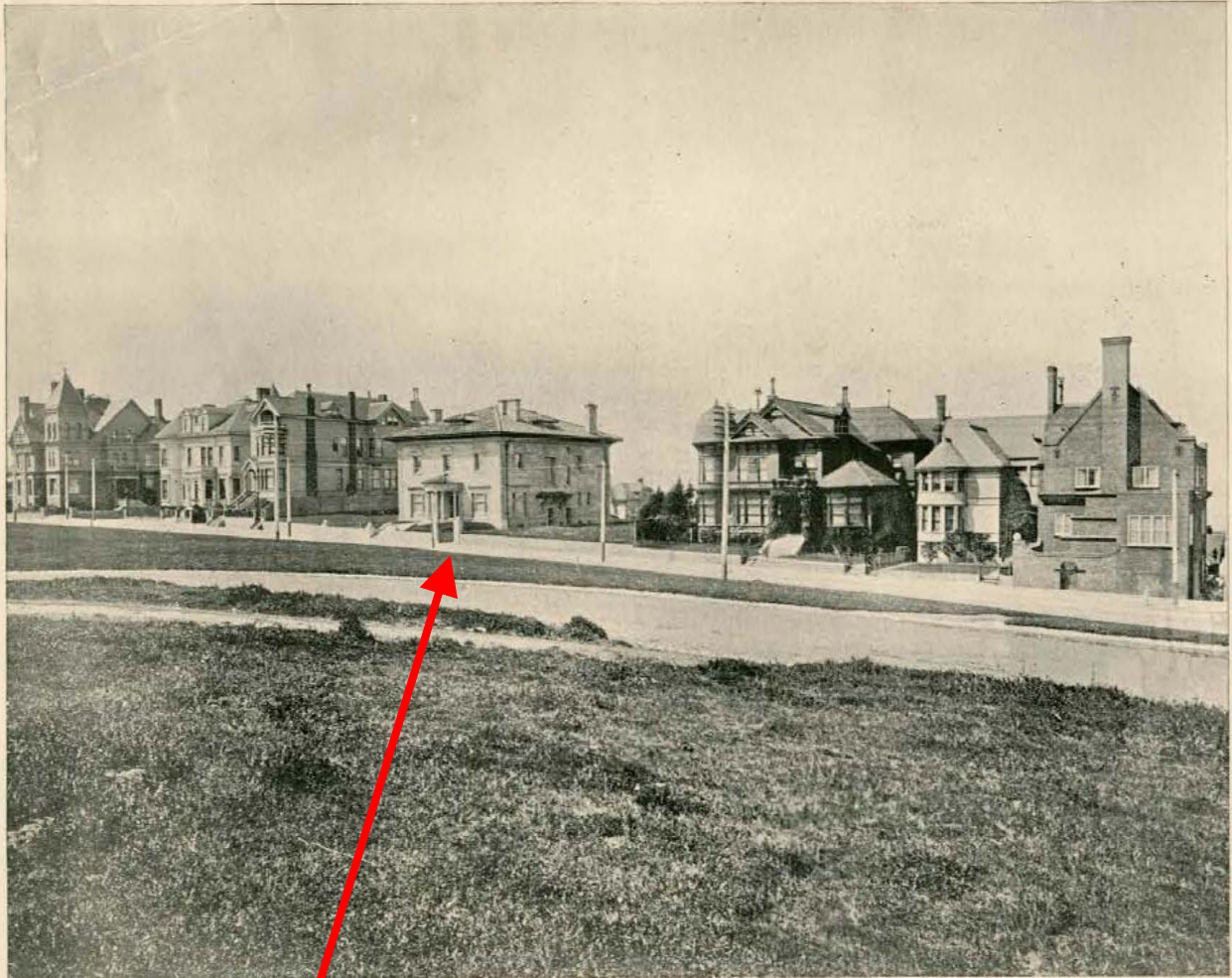
Certificate of Appropriateness  
Case Number 2018-009078COA  
2622 Jackson Street



# Historic Photo

PANORAMIC SERIES, PLATE 13.

WITH S. F. NEWS LETTER, MAY 16, 1896.



PICTURESQUE SAN FRANCISCO.

Artistic Homes on Jackson Street, from Pierce to Scott, Facing Alta Plaza.

SUBJECT PROPERTY

Certificate of Appropriateness  
Case Number 2018-009078COA  
2622 Jackson Street



# SAN FRANCISCO PLANNING DEPARTMENT

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## Historic Preservation Commission Motion No. XXX

HEARING DATE: SEPTEMBER 18, 2019

1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

Reception:  
**415.558.6378**

Fax:  
**415.558.6409**

Planning  
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**ADOPTING FINDINGS FOR A CERTIFICATE OF APPROPRIATENESS FOR PROPOSED WORK DETERMINED TO BE APPROPRIATE FOR AND CONSISTENT WITH THE PURPOSES OF ARTICLE 10, TO MEET THE STANDARDS OF ARTICLE 10 AND TO MEET THE SECRETARY OF INTERIOR’S STANDARDS FOR REHABILITATION, FOR THE PROPERTY LOCATED AT 2622 JACKSON STREET (ASSESSOR’S BLOCK 0585, LOT 008), WITHIN A RH-2 (RESIDENTIAL-HOUSE, TWO FAMILY) ZONING DISTRICT, A 40-X HEIGHT AND BULK DISTRICT, LANDMARK NO. 203.**

### PREAMBLE

WHEREAS, on August 10, 2018, Butler Armsden Architects (“Project Sponsor”) filed an Application with the San Francisco Planning Department (hereinafter “Department”) for a Certificate of Appropriateness for exterior alterations to the property, including façade restoration at all elevations, selective window replacement at all elevations, and the replacement of a portion of the front retaining wal.

WHEREAS, the Project was determined by the Department to be categorically exempt from environmental review. The Historic Preservation Commission (“Commission”) has reviewed and concurs with said determination.

WHEREAS, on September 19, 2019, the Commission conducted a duly noticed public hearing on the current project, Case No. 2018-009078COA (Project) for its appropriateness.

WHEREAS, in reviewing the Application, the Commission has had available for its review and consideration case reports, plans, and other materials pertaining to the Project contained in the

Department's case files, has reviewed and heard testimony and received materials from interested parties during the public hearing on the Project.

**MOVED**, that the Commission hereby grants the Certificate of Appropriateness, in conformance with the architectural plans labeled Exhibit A on file in the docket for Case 2018-009078COA based on the following conditions and findings:

### **CONDITIONS**

1. The project sponsor shall accommodate regular site visits with Department preservation staff to verify ongoing compliance with the approved project description and conditions of approval.
2. In addition to regular site visits, mockups of repairs and/or replacement materials shall be provided prior to completion of work for Planning Department review and approval.

### **FINDINGS**

Having reviewed all the materials identified in the recitals above and having heard oral testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and also constitute findings of the Commission.
2. Findings pursuant to Article 10:

The Historic Preservation Commission has determined that the proposed work is compatible with the character of the landmark district as described in the designation report and meets the Secretary of the Interior's Standards for Rehabilitation:

**Standard 1:** A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

*The proposed project does not involve a change in use of the property. Therefore, the proposed project complies with Rehabilitation Standard 1.*

**Standard 2:** The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

*The proposed project will retain the historic character of the property and will not remove any historic materials or features that characterize the property. The historic stone material will be retained and repaired. Where deterioration of historic materials is severe, such as missing stone or windows beyond repair, the materials will be replaced in kind. Therefore, the proposed project complies with Rehabilitation Standard 2.*

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*Dutchman repair and mortar will match the existing in color and texture. Mortar joints will be repointed with mortar that matches the existing in color and texture.*

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*Therefore, the proposed project complies with Rehabilitation Standard 6.*

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**Standard 8:** Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures will be undertaken.

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**Standard 9:** New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

*The proposed project will not destroy historic materials, features, or spatial relationships that characterize the property. Although new stone units using Dutchman repairs will be visible, and therefore differentiated from the surrounding stone due to the lack of patina and weathering, the Dutchman repairs will be compatible in materials, size, scale, and proportion with the non-weathered stone. Over time and through the weathering process and environmental conditions, the visual qualities of the new stone will become more compatible to the historic weathered stone.*

*The proposed retaining wall will be compatible with the existing retaining walls. It will match the height of the existing retaining wall and will be clad in stone and topped with a stone cap that will be compatible with the materials and features of existing retaining walls.*

*Therefore, the proposed project complies with Rehabilitation Standard 9.*

**Standard 10:** New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

*The proposed project would not affect the essential form and integrity of the building. Therefore, the proposed project complies with Rehabilitation Standard 10.*

3. **General Plan Compliance.** The proposed Certificate of Appropriateness is, on balance, consistent with the following Objectives and Policies of the General Plan:

I. URBAN DESIGN ELEMENT

THE URBAN DESIGN ELEMENT CONCERNS THE PHYSICAL CHARACTER AND ORDER OF THE CITY, AND THE RELATIONSHIP BETWEEN PEOPLE AND THEIR ENVIRONMENT.

GOALS

*The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes, and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.*

OBJECTIVE 1

EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

POLICY 1.3

*Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts.*

OBJECTIVE 2

CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

POLICY 2.4

*Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.*

POLICY 2.5

*Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings.*

POLICY 2.7

*Recognize and protect outstanding and unique areas that contribute in an extraordinary degree to San Francisco's visual form and character.*

*The goal of a Certificate of Appropriateness is to provide additional oversight for buildings and districts that are architecturally or culturally significant to the City in order to protect the qualities that are associated with that significance.*

*The proposed project qualifies for a Certificate of Appropriateness and therefore furthers these policies and objectives by maintaining and preserving the character-defining features of the contributory property and landmark district for the future enjoyment and education of San Francisco residents and visitors.*

4. The proposed project is generally consistent with the eight General Plan priority policies set forth in Section 101.1 in that:

- A) The existing neighborhood-serving retail uses will be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses will be enhanced:

*The proposed project is for the rehabilitation of a residential property and will not have any effect on neighborhood-serving retail uses.*

- B) The existing housing and neighborhood character will be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods:

*The proposed project will strengthen neighborhood character by respecting the character-defining features of the site and landmark district in conformance with the Secretary of the Interior's Standards.*

- C) The City's supply of affordable housing will be preserved and enhanced:

*The project will not reduce the affordable housing supply as the existing single-family residential use will not be changed.*

- D) The commuter traffic will not impede MUNI transit service or overburden our streets or neighborhood parking:

*The proposed project will not result in commuter traffic impeding MUNI transit service or overburdening the streets or neighborhood parking.*

- E) A diverse economic base will be maintained by protecting our industrial and service sectors from displacement due to commercial office development. And future opportunities for resident employment and ownership in these sectors will be enhanced:

*The proposed project will not have any impact on industrial and service sector jobs.*

- F) The City will achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

*Preparedness against injury and loss of life in an earthquake was previously improved by the project. The work will be executed in compliance with all applicable construction and safety measures.*

- G) That landmark and historic buildings will be preserved:

*The proposed project is in conformance with Article 10 of the Planning Code and the Secretary of the Interior's Standards.*

- H) Parks and open space and their access to sunlight and vistas will be protected from development:

*The proposed project will not impact the access to sunlight or vistas for the parks and open space.*

5. For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the Secretary of Interior's Standards for Rehabilitation, General Plan and Prop M findings of the Planning Code.



## DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **APPROVES a Certificate of Appropriateness** for the property located at Lot 045 in Assessor's Block 0776 for proposed work in conformance with the renderings and architectural sketches labeled Exhibit A on file in the docket for Case No. 2018-009197COA.

**APPEAL AND EFFECTIVE DATE OF MOTION:** The Commission's decision on a Certificate of Appropriateness shall be final unless appealed within thirty (30) days. Any appeal shall be made to the Board of Appeals, unless the proposed project requires Board of Supervisors approval or is appealed to the Board of Supervisors as a conditional use, in which case any appeal shall be made to the Board of Supervisors (see Charter Section 4.135).

**Duration of this Certificate of Appropriateness:** This Certificate of Appropriateness is issued pursuant to Article 10 of the Planning Code and is valid for a period of three (3) years from the effective date of approval by the Historic Preservation Commission. The authorization and right vested by virtue of this action shall be deemed void and canceled if, within 3 years of the date of this Motion, a site permit or building permit for the Project has not been secured by Project Sponsor.

**THIS IS NOT A PERMIT TO COMMENCE ANY WORK OR CHANGE OF OCCUPANCY UNLESS NO BUILDING PERMIT IS REQUIRED. PERMITS FROM THE DEPARTMENT OF BUILDING INSPECTION (and any other appropriate agencies) MUST BE SECURED BEFORE WORK IS STARTED OR OCCUPANCY IS CHANGED.**

I hereby certify that the Historical Preservation Commission ADOPTED the foregoing Motion on September 19, 2019.

Jonas P. Ionin  
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: September 19, 2019



# CERTIFICATE OF APPROPRIATENESS

## SUPPLEMENTAL APPLICATION

### Property Information

Project Address:

Block/Lot(s):

### Project Description:

### FINDINGS OF COMPLIANCE WITH PRESERVATION STANDARDS

Article 10 Landmark Name/ Number:

	FINDINGS OF COMPLIANCE WITH PRESERVATION STANDARDS	YES	NO	N/A
1	Is the property being used as it was historically?			
2	Does the new use have minimal impact on distinctive materials, features, spaces, and spatial relationship?			
3	Is the historic character of the property being maintained due to minimal changes of the above listed characteristics?			
4	Are the design changes creating a false sense of history of historical development, possible from features or elements taken from other historical properties?			
5	Are there elements of the property that were not initially significant but have acquired their own historical significance?			
6	Have the elements referenced in Finding 5 been retained and preserved?			
7	Have distinctive materials, features, finishes, and construction techniques or examples of fine craftsmanship that characterize the property been preserved?			
8	Are all deteriorating historic features being repaired per the Secretary of the Interior Standards?			
9	Are there historic features that have deteriorated and need to be replaced?			
10	Do the replacement features match in design, color, texture, and, where possible, materials?			
11	Are any specified chemical or physical treatments being undertaken on historic materials using the gentlest means possible?			
12	Are all archeological resources being protected and preserved in place?			
13	Do exterior alterations or related new construction preserve historic materials, features, and spatial relationships that are characteristic to the property?			
14	Are exterior alterations differentiated from the old, but still compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment?			
15	If any alterations are removed one day in the future, will the forms and integrity of the historic property and environment be preserved?			

Please summarize how your project meets the Secretary of the Interior's *Standards for the Treatment of Historic Properties*, in particular the *Guidelines for Rehabilitation*, and how the project will retain character-defining features of the building and/or district:

## FINDINGS OF COMPLIANCE WITH PRESERVATION STANDARDS

In reviewing applications for Certificate of Appropriateness the Historic Preservation Commission, Department staff, Board of Appeals and/or Board of Supervisors, and the Planning Commission shall be governed by *The Secretary of the Interior's Standards for the Treatment of Historic Properties* pursuant to Section 1006.6 of the Planning Code. Please respond to each statement completely (Note: Attach continuation sheets, if necessary). Give reasons as to *how* and *why* the project meets the ten Standards rather than merely concluding that it does so. IF A GIVEN REQUIREMENT DOES NOT APPLY TO YOUR PROJECT, EXPLAIN WHY IT DOES NOT.

1. The property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
  
  
  
  
  
  
  
  
  
  
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.
  
  
  
  
  
  
  
  
  
  
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
  
  
  
  
  
  
  
  
  
  
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
  
  
  
  
  
  
  
  
  
  
5. Distinctive materials, features, finishes, and construction techniques or examples of fine craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would not be impaired.

*PLEASE NOTE: For all applications pertaining to buildings located within Landmark Districts, the proposed work must comply with all applicable standards and guidelines set forth in the corresponding Appendix that describes the District, in addition to the applicable standards and requirements set forth in Section 1006.6. In the event of any conflict between the standards of Section 1006.6 and the standards contained within the Appendix that describes the District, the more protective shall prevail.*

# APPLICANT'S AFFIDAVIT

Under penalty of perjury the following declarations are made:

- a) The undersigned is the owner or authorized agent of the owner of this property.
- b) The information presented is true and correct to the best of my knowledge.
- c) Other information or applications may be required.

DM Sturm      8/10/2018  
Signature      Date

Dave Sturm

Name (Printed)

Project Architect

415-266-7766

sturm@butlerarmsden.com

Relationship to Project  
(i.e. Owner, Architect, etc.)

Phone

Email

## For Department Use Only

Application received by Planning Department:

By: \_\_\_\_\_

Date: \_\_\_\_\_

**EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA**



Prepared for:

San Francisco Planning Department  
1650 Mission St. Ste. 400  
San Francisco, CA 94103

Revised April 10th, 2019  
February 1st, 2019



## TABLE OF CONTENTS

<b>PROJECT TEAM.....</b>	<b>3</b>
<b>INTRODUCTION.....</b>	<b>4</b>
Historic Context	
Life Safety Issues	
<b>VISUAL SURVEY &amp; CLEANING MOCK-UP.....</b>	<b>6</b>
Methodology	
Cleaning Results & Observations	
Photos	
<b>EXISTING CONDITIONS.....</b>	<b>13</b>
Ashlar Stone Cladding	
Portico	
Wood Windows	
<b>TREATMENT RECOMMENDATIONS.....</b>	<b>17</b>
Stabilization Of Sandstone Masonry	
Site Drainage And Waterproofing	
Window Replacement	
<b>EXTERIOR IMAGES.....</b>	<b>28</b>
<b>DOCUMENTATION AND SURVEY.....</b>	<b>38</b>
<b>SPECIFICATION DATA SHEETS.....</b>	<b>81</b>
Window Details	



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## **PROJECT TEAM**

### **Architect**

Butler Armsden Architects  
1420 Sutter Street, First Floor  
San Francisco, CA 94109

### **Stone Conservation Consultant**

Chris Daniels  
Stone & Architectural Conservation Consultant  
Old Gospel Hall Back Lane  
Evershot, Dorset DT2 0JT UK

### **Stone Conservation Contractor**

QuarryHouse Inc.  
217 San Anselmo Avenue, Suite #C  
San Anselmo, CA 94960

### **General Contractor**

Upscale Construction  
2151 Union Street, Suite #1  
San Francisco, CA 94123

### **Geotechnical Engineer**

Rollo & Ridley, Inc.  
989 Sutter Street  
San Francisco, CA 94109



## INTRODUCTION

The intent of this study is to provide information and a comprehensive strategy for preserving an important historic resource and allowing continued use and enjoyment for many years to come for this private residence.

Originally surveyed by the Planning Department in 1975, 2622 Jackson Street was designated city landmark #203 in 1993. The building was highly rated in all four evaluative categories of Architecture, Historic Context, Physical Context, and Integrity<sup>1</sup>.

### Historic Context

As the leader of iron and steel production on the West Coast, George W. Gibbs commissioned the young architect Willis Polk in 1894 to design his retirement residence at 2622 Jackson Street (Image 5). As Pacific Heights became a popular neighborhood for large Victorian mansions, this would be the first stone residence styled heavily on Italian Renaissance influences. It would also be considered by some to be the first classical residence in San Francisco<sup>2</sup>.

With the portico design being adapted from the Temple of Vesta at Tivoli, Polk recruited the prominent local sculptor Douglas Tilden to design and carve the decorative elements. Recently returning from a trip to Europe, Tilden would design the six Medusa heads that adorn the portico frieze<sup>3</sup>. The entire facade was built in Yaquina Bay sandstone. The quarry is long closed and is located within an Oregon State Park established in 1948.

Gibbs would enjoy the residence for only two months before his death while his wife would remain living in the house until 1918. The house was then purchased by the Japanese Government and used as the Japanese West Coast Consulate until the beginning of World War II when it was then occupied by the American Red Cross. The residence was returned to single-family use in 1989 at which time several interior renovations and seismic retrofit projects have taken place until the present<sup>4</sup>.

<sup>1</sup> San Francisco City Planning Commission, Resolution No. 13515, San Francisco Landmark #203 (City of San Francisco, 1993).

<sup>2</sup> Richard W. Longstreth, *On the Edge of the World* (Cambridge: The MIT Press, 1983), 193-195.

<sup>3</sup> Mildred Albronda, *Douglas Tilden: The Man and His Legacy* (Seattle: Emerald Point Press, 1994), 48.

<sup>4</sup> Gibbs, George W. House, San Francisco, (PCAD) Pacific Coast Architecture Data Base (Seattle: University of Washington, 2005-2015).



## INTRODUCTION

### Life Safety Issues

Continuing failures of the exterior stone façade, especially at the portico, have brought attention to life safety issues and structural integrity of stone elements. Among material failures, the delicate and ornate capitals have suffered damage and loss as well as portions of the decorative cornice. As a safety measure, wire cloth and screw-jack shoring were installed at the portico columns, capitals, and plaster dome to prevent falling hazards.

Due to the severe deterioration of stone and observable movement of the portico, QuarryHouse, recognized as an expert stone and masonry contractor, conducted an investigation into the facade. The investigation included an assessment of existing conditions and treatment recommendations. All repairs and treatment recommendations proposed during this investigation were based on contemporary architectural conservation practices and in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

## VISUAL SURVEY AND CLEANING MOCK-UP

### Methodology

As a primary component of the pre-construction investigation, documentation of the existing conditions of the south elevation and portico were performed. During the month of August 2017, a visual survey was conducted from the ground with the upper reaches of the building surveyed using binoculars. Each individual masonry unit was assigned a unit number that could then be correlated to annotated elevation drawings and digital images.

In October 2018, under BPA #2018-0228-2445 (the Phase 1 Cleaning Permit), a cleaning mock-up and additional surveys were conducted. The East, North and West elevations were visually inspected at this time, as well again in early March 2019. Because of the 2018 survey, it has been determined that certain front façade elements require more repair and perhaps replacement, especially at the portico.

In addition to the documentation and visual survey, a masonry unit was carefully removed from the portico to investigate the interior framing and construction techniques. A stone unit from the portico cornice was chosen for removal due to the severe deterioration of the stone and it being adjacent to the south elevation wall. To allow removal of the stone, tile roofing, roofing paper, and decking was also carefully removed. The removed cornice was then used as a template for a temporary replacement.

Three test panels were cleaned at the south elevation in October 2018. Intent of the proposed cleaning treatments was to primarily benefit the building stone by removing the accumulation of unwanted materials, secondarily to allow for a comprehensive survey of existing stone conditions, and lastly to improve aesthetics. Due to the inherent softness and present condition of the sandstone, the most gentle and benign cleaning methods were employed. Aggressive cleaning that includes the use of proprietary chemicals or other inappropriate methods that would be detrimental to the stone/patina were not considered.

To investigate the portico foundation and extent of stone masonry sub-grade, two small trenches were hand excavated. These trenches measured approximately 24 inches in depth. Once documented, the trenches were then back filled. A geotechnical survey was also conducted by the firm Rollo & Ridley to assess soil conditions and bearing capacities.

## VISUAL SURVEY AND CLEANING MOCK-UP

Due to the severity of staining and access considerations, the south elevation was chosen as the location for three test panels. Each panel measured approximately 4' in width by 6' in height and were located to the east and west of the portico. These locations included ashlar masonry units as well as decorative elements. The mock-up was approached as a general cleaning and did not include the focused cleaning of specific stains. The objective was to observe the results of a general cleaning that has previously been proposed for the entire building.

Manufactured by Restorative Techniques in the United Kingdom, the Thermatech power washing system was developed specifically for the cleaning of historic stone masonry and heritage properties in the United Kingdom<sup>6</sup>. Purchased by QuarryHouse specifically for projects with delicate substrates, the Thermatech unit was used as the primary method for the cleaning mock-ups.

The technical data sheet for the cleaning system is provided in the specifications section.

Water in the Thermatech system is super-heated up to 300 degrees Fahrenheit and both water and steam are then fed through a low volume nozzle that is delivered to the stone at a constant temperature and pressure (Data Sheet 1). During the cleaning mock-up, water temperature was kept at 300 degrees Fahrenheit and a wider 60-degree angled nozzle was used in conjunction with a lower pump pressure of 400 pounds per square inch at the gun. Distance of the gun from the substrate was kept between 12" to 18".

A total of three passes were made at each panel with approximately 7-8 minutes dwell time between each pass. In several locations, the stone surface was lightly agitated with a soft bristled nylon brush to loosen moistened particulates and areas of biological growth.

<sup>6</sup> [www.restorativetechniques.co.uk](http://www.restorativetechniques.co.uk)

## CLEANING RESULTS AND OBSERVATIONS

All three test areas (as shown in Figure 1) contained substantial biological growth that included moss, lichen, and algae. In addition to biological growth, general environmental staining in the form of soiling and deposited particulates were observed. With a total of three passes of the power washing at each location, most of the biological growth and soiling was removed.



FIGURE 1. Areas cleaned.

## CLEANING RESULTS AND OBSERVATIONS

Depending on the depth of biological growth into the actual stone surface, results varied. Some darker areas of biological growth within the stone surface were lessened but not completely removed. In addition, staining or mottling associated with leaching of inherent minerals within the sandstone were generally not removed during the treatment. In most cases, the inconsistencies created by mineral staining can be considered part of the patina and would want to be retained.

The following observations were made:

- Moderate to highly effective for removal of biological growth.
- Highly effective for the removal of general soiling.
- Minimally effective for removal of mineral staining.
- No granulation of sandstone or loss of material.
- No loss of patina.
- Renewed brightness of sandstone.
- No loss of mortar joints.
- Cleaned surface allows for a more comprehensive survey of conditions.

In conclusion, the overall appearance of the cleaned areas compared to adjacent masonry was much brighter and visually uniform. As a general cleaning method, the aesthetic appearance was greatly improved while retaining patina and historic integrity.

Other recommendations may include the testing of a mild biocide such as D/2 to mitigate further biological growth and perhaps more focused cleaning of problematic staining. Experimentation with the Thermatech system may include the use of different nozzles, additional cleaning passes, and/or gentle agitation with nylon brushes.



## PHOTOS - CLEANING RESULTS AND OBSERVATIONS



IMAGE 1. Area A lower water table before cleaning.



IMAGE 2. Area A lower water table after final cleaning.

## PHOTOS - CLEANING RESULTS AND OBSERVATIONS



IMAGE 3. Area C prior to cleaning.



## PHOTOS - CLEANING RESULTS AND OBSERVATIONS



IMAGE 4. Area C during cleaning.

## EXISTING CONDITIONS

### Ashlar Stone Cladding

The ashlar stone cladding is comprised of a gray sandstone transported from Yaquina Bay, Oregon. This loosely cemented sandstone is relatively soft and contains infrequent bands of iron oxide and yellowish limonite. The ashlar masonry consists of horizontal courses alternating between 1 foot in height and 2 feet in height with relatively small mortar joints of 3/8 of an inch.

Due to the high porosity and softness of the sandstone, moisture infiltration has been a leading cause of deterioration, failure, and delamination. This condition can be observed at lower portions of the building where the irrigation of landscaping has directly saturated stone masonry or has entered the stone through capillary action below grade (Image 6). Other areas of severe moisture infiltration include window sills, lintels and other decorative elements that have poor drainage details (Images 22-23).

Additional causes of deterioration to the elevations include the exposure to heavy winds and rain. Due to prevailing winds, the south elevation and portico have the highest exposure to inclement weather. This is evident by the pronounced deterioration and biological staining at this elevation. Other staining includes environmental staining from natural and automotive particulates that have accumulated over the years. Sulphur contained in air pollution affects the mineral content of the stone producing a brownish or rust color. This change in color can be observed at the borders of the sandstone units where the lime mortar joints have neutralized the acidity of the stone preventing these areas to turn the darker rust color (Images 20-21).

The conditions observed of the ashlar masonry are described as follows and compiled in Figures 2 and 6-10.

- **Material Loss/Spalls:**

Due to both deterioration and cracking, actual failure and material loss was observed at decorative stone elements. These include spalling of quoins, dentils, decorative lintels, sills, and cornice. Incipient spalling was observed at several locations at the dentils and quoins (Images 7-10). These should be considered life safety issues and prioritized for stabilization or repair.

## EXISTING CONDITIONS

- Cracks:

For this investigation cracking has been defined as hairline cracking associated with delamination/deterioration and larger cracking that exhibits considerable amounts of displacement or depth (Image 16). Hairline cracking can be observed throughout the ashlar masonry and is considered more of a waterproofing issue than a structural concern. Hairline cracking allows intrusion of moisture and exacerbates both deterioration and delamination of the stone.

Although not frequent, larger cracking was observed at several locations. The larger cracking may be associated with previous seismic events or other movement of the structure (Image 17). This cracking is more substantial in depth than the hairline cracking and in some cases, continues through multiple masonry units.

- Delamination:

Delamination is a common condition found throughout both the ashlar masonry units and decorative elements (Images 8-9). Causes of delamination include moisture infiltration of the sandstone and in some cases, may be in conjunction with the face bedding of the stone. Severity of delamination varies from small areas of detached stone to larger portions of complete quoins that have failed and fallen. Although areas of delamination were noted during the visual survey, a comprehensive sounding survey should be performed once there is access to the entire elevation with scaffolding.

- Previous Interventions:

Other interventions observed include mortar patching and Dutchman repairs. Quality, color, and material of previous repairs vary. Although not a large number of previous repairs were observed, the uses of Portland cement mortar patches can be found at lower portions of the elevations. Repairs using Portland cement are detrimental to the sandstone masonry and exacerbate deterioration due to impermeability and hardness. Several Dutchman repairs were observed at quoins and other areas of severe deterioration and material loss (Image 15).

## EXISTING CONDITIONS

### Portico

Constructed of the same Yaquina Bay Sandstone as the facade, the ornate portico includes six free standing columns and two partial columns intersecting with the ashlar masonry of the south elevation. The columns are capped with intricate ionic capitals that support the entablature. The entablature includes a decorative architrave, a frieze containing six carved medusa heads, and a cornice containing both dentils and egg and dart details. Within the interior of the circular portico, a decorative plaster dome rests on the stone architrave. The entire portico is roofed with ceramic roof tiles and flashed with copper.

Differential settlement of the soils below the portico foundation appears to have caused substantial movement of the portico resulting in the upper portion pulling away from the south elevation of the building. This movement has caused extensive cracking and displacement of the frieze and cornice. Complete stone units of the cornice have cracked and separated creating displacement of up to one inch (Images 17-18). Other stone units exhibit displacement and separation at mortar joints.

In addition to settlement and displacement, severe deterioration and material loss can be observed at all decorative elements of the portico (Images 13-16). The severity of this deterioration can be contributed to both exposure to weather elements and moisture intrusion due to roofing and flashing deficiencies (Image 23). Failure and material loss is most prevalent at the capitals with multiple volutes missing and others damaged, or cracked.

## EXISTING CONDITIONS

All conditions of the stone previously described in the ashlar stone section can be found at the portico with the most severe being at the interface with the ashlar stone cladding. These conditions are documented and compiled in Figures 3-5.

At some point, insufficient or damaged flashing details allowed substantial amounts of moisture to enter stone units at the cornice (Image 19). This continued condition and saturation of the sandstone eventually caused the severe deterioration and loss of material that was observed when one stone unit was removed as part of the investigation.

As a component of the portico, an ornate plaster dome was installed at the interior. It appears that the steel and lathed dome structure is supported by the stone architrave of the entablature. Overall condition of the plaster dome is good except of two small areas of missing plaster. Considered to be original, the plaster dome contributes to the historic integrity of the portico (Image 24). The plaster dome will be kept intact throughout the restoration work.

### Wood Windows:

At the First Floor level, it is expected that the wood framing for the window sills will have been compromised due to subgrade water infiltration. At the second floor level, weather intrusion due to compromised stone work will have negatively affected the wood window units. Replacing just the sashes would be less expensive but the concern is that the wood will have decayed to the point where entirely new wood windows will be necessary. See treatment recommendations for description of work involving window replacement.

## TREATMENT RECOMMENDATIONS

### Stabilization of Sandstone Masonry

As the existing conditions of the stone have been described and identified in the section above, the following treatments are recommended as a means of stabilizing and maintaining as much historic fabric as possible while addressing life safety issues and material loss. The following treatments are standard stone conservation methodologies used throughout the United States and described by stone conservation consultant, Chris Daniels<sup>7</sup>.

- Pinning/Micro Grouting:

As previously described, delamination is a common condition found throughout the elevations. The use of anchors or pins together with micro grouting of associated voids is recommended to retain as much original material as possible.

The process would include the drilling and countersunk installation of small gauge stainless steel wire/threaded rod set in natural hydraulic lime grout to attach the loose delaminated stone to sound stone substrate (See data sheets in specification section). Size and type of anchor will be determined by the amount and size of the area of delamination. After installation, an appropriate mortar patch can be used to fill the countersinking of the pins.

Thin or small areas of delamination will benefit from the in-situ injection of a natural hydraulic lime grout that can be injected into cracks or in larger cases, drilled holes that allow access to voids. The grout design should include an appropriate aggregate size that will allow flowability and injection into all voids and cracks (See Specification section). Care should be taken to prevent overflow and staining of adjacent stone. This may include the plugging or damming of cracks with cotton or other removable materials to allow the filling of above voids.

<sup>7</sup> Chris Daniels, *The Stone Restoration Handbook* (Ramsbury, Marlborough Wiltshire: The Cromwood Press, 2015).

<sup>8</sup> [www.restorativetechniques.co.uk](http://www.restorativetechniques.co.uk)

## TREATMENT RECOMMENDATIONS

- Mortar Repair/Patching

Areas of material loss or severe deterioration that are not considered large enough to require a Dutchman repair or stone replacement, should be repaired with a site-specific designed mortar repair. Intent of the mortar repair is to visually recreate missing fabric while providing a sacrificial repair that prevents further deterioration or loss of original material. Extensive test samples of various colors and texture should be provided for approval prior to installation. The approved test samples can then be used as standards for the duration of the project.

Although many proprietary mortar repair products are available, it is recommended that a site-specific repair mortar be developed in a range of colors and textures to match the variations in the existing stone. The mortar should consist of 1-part Natural Hydraulic Lime 3.5 (Data Sheet 2) with 1.5 to 2.5 parts of an aggregate that matches the size, shape, and color of building sandstone as much as possible. An aggregate between no. 25 and no. 40 sieve size will most closely match the natural stone. The aggregate characteristics and range of added pigments will ultimately affect the overall visual compatibility with the original stone. Only mineral oxide pigments without additives should be used as coloring agents to prevent fading.

The technical information sheets for Saint Astier Natural Hydraulic Lime 3.5 and Merlex mineral oxide pigment are provided in the specification section.

Proper preparation of the stone substrate is crucial for successful installation of mortar repairs. First, all loose and friable material should be identified and carefully removed to sound stone. Once cleaned, the sound substrate margins surrounding the scar should be undercut at acute angles to create a key for the repair.



## TREATMENT RECOMMENDATIONS

Depending on the size and location of the repair, additional mechanical anchors may be required. Within the scar area, carbon fiber rod, stainless steel screws, or wire may be anchored into drilled sound substrate with plastic anchors or natural hydraulic lime. All anchors should be installed at random angles and not perpendicular to the sound substrate. Smaller repairs can simply use the rod or screws as a mechanical key while larger areas may require the lacing of stainless steel wire from anchor to anchor to create a lattice armature.

Prior to installation, the repair area should be sufficiently moistened to reduce excessive suction and a lime slurry brushed into the scar area/perimeter. The mortar repair can be installed at a minimum of 3/16" to a maximum of 4" installed in 2" lifts. The repair should be covered with a moistened cloth or fabric and then enclosed in plastic sheeting taped to the substrate. The repair should be monitored for up to 7 days until the proper curing has taken place.

Once properly cured, the repair can then be carved, sanded, or shaped to match adjacent details. If required, a shelter coat or pigmented wash may be applied to the repair and surrounding historic stone to create a homogenous appearance. See the hairline crack repair mortar color matching report, submitted May 22nd, 2018.

- Dutchman Repair

Dutchman repair or selective replacement is recommended for larger and more detailed areas of material loss or severe deterioration. This treatment is intended to replace only the missing or deteriorated portions of a stone unit, therefore retaining as much original material as possible. Defining the perimeters or extent of a Dutchman repair should be dictated by the condition of the material and the size/shape of the original masonry unit.

Dutchman repairs of thin horizontal or vertical elements can be terminated at right angles. Boundaries of larger Dutchman repairs should follow the extent of deterioration and terminate at sound material. Size and shape of all Dutchman repairs are shown on the proposed elevations included in the revised Phase 2 Permit Set dated 4/10/2019.

## TREATMENT RECOMMENDATIONS

Preparation of the dutchman repair requires the removal of all deteriorated existing stone to sound stable material. Cutting out the area to be repaired can be performed with drills, disc cutters, or hand tools but should prevent any damage to adjacent stone and produce sharp square edges. Hammer drills should not be used. Sizing and cutting of the new stone are critical in creating a repair that has less than 1/64" joint. Bedding and color of the introduced repair should match as closely as possible to the existing stone. The use of plastic film can be used for test fitting the repair without damaging the repair or existing stone.

Once prepped and fitted, the Dutchman repair should be doweled or anchored to the sandstone substrate with carbon fiber rod or stainless-steel threaded rod set in epoxy or an appropriate natural hydraulic lime mortar (Data Sheets 4-5). The surrounding material and repair stone should be thoroughly moistened prior to installation and the repair set in natural hydraulic lime mortar.

In some cases, it may be necessary to set the repair proud of the existing face allowing the repair to be tooled or finished off once installed. In-situ tooling should only be performed after the lime mortar has properly cured. All joints should be tight, square, and flush with surrounding masonry.

The Yaquina Bay Sandstone quarry is no longer in existence and sourcing existing stock of this material has not been possible. As a comparable replacement stone, Berea Sandstone from Birmingham, Ohio was found to be similar in color, texture, and composition to the original Yaquina Bay Sandstone. This material is readily available through Cleveland Quarries based in Vermillion, Ohio, and could be used for all Dutchman repairs.

Prior to approval of dutchman repairs, a range of new stone samples will be presented. Samples will provide a range of colors, bedding, and any other variation available that can be used to match the Yaquina Bay Sandstone. All samples and mock-ups will be documented and properly labeled to use as standards for the project.

Due to the lack of patina and weathering processes, the dutchman repairs will in many cases, be discernable from the surrounding stone. Intent of the repair is to match the non-weathered stone as much as possible. Over time, weathering processes and environmental conditions will eventually provide a closer color match to the original weathered stone.

## TREATMENT RECOMMENDATIONS

- Hairline Crack Repair/Stabilization

As described above, hairline cracking is a common condition found throughout all of the elevations at all types of masonry elements. To mitigate moisture intrusion, it is recommended that these hairline cracks be filled with a natural hydraulic lime grout that is designed to match the adjacent masonry in color and texture. Filling these cracks with a compatible lime mortar will mitigate moisture intrusion, slow deterioration, and allow breathability.

Similar to the mortar repair design described above, the hairline crack repair will consist of natural hydraulic lime (Data Sheet 2) and an appropriate aggregate and pigment that creates a color match to the existing stone. A very fine aggregate to a higher proportion of lime may help in the installation of this repair - please refer to hairline crack repair mortar matching submitted May 22nd, 2018.

Prior to installation, the crack and surrounding stone should be properly moistened and the crack carefully filled with the designed grout. This repair can be installed with a tuck-pointing trowel or in many cases it may be more efficient to use gloved fingers to push the grout into the crack. Care should be taken to prevent staining of adjacent stone and in some cases, masking of the crack may be helpful.

Once installed, the repair should be covered with moistened cloth and sealed with plastic sheeting taped around the repair to provide the proper curing conditions. After seven days, the plastic should be removed and any residual grout can be removed from surrounding stone. Similar to joint pointing mortar, this repair should be considered sacrificial and is intended to slow deterioration and water intrusion.

- Large Crack Stabilization/Scissor Pinning

Larger cracks that exhibit displacement or suggest a loss of structural integrity should be stabilized by scissor pinning. The concept of scissor pinning is to mechanically connect both sides of a large crack to each other.

This treatment can be accomplished by the installation of carbon fiber rods or stainless-steel threaded rods at approximately 22 ½ degree perpendicular angles at each side of the crack (Data Sheets 4-5). The spacing, size, and depth of this pinning should be determined by the amount and depth of displacement.

## TREATMENT RECOMMENDATIONS

All drilling should be accomplished with non-hammer type drills and should be drilled to a depth that reaches as much sound material as possible. Once drilled, all loose material and dust should be blown out with compressed air to provide a clean surface for grouting of the dowels. Dowels or rods should be countersunk to a depth that allows for the installation of a mortar plug but does not compromise the integrity of the stone being pinned.

As a reversibility issue, it is recommended that the dowels or rods be grouted or set with a compatible natural hydraulic lime grout. Once pinned, all cracks should be filled or grouted with a similar grout or mortar as described above for hairline cracking. Holes created by the countersinking of the pinning should be filled with a mortar repair to match the existing stone.

- Repointing

Although condition of the pointing mortar varies throughout the elevations, it is recommended that all mortar joints be raked out and re-pointed with a natural hydraulic lime mortar designed to match the original in color and texture (Data Sheet 2). In general, pointing mortars are considered a sacrificial waterproofing measure and require periodic maintenance and/or replacement throughout the life of the building.

Prior to re-pointing, it is suggested that a mortar analysis be performed of the original pointing mortar. This exercise will be helpful during the mortar design to match the original aggregate in color, size, and texture. Prior to re-pointing, mock-ups should be installed for approval.

The cutting out or raking out of existing mortar should be accomplished with care to prevent damage to the stone masonry. Due to the small width of the existing joints, the depth of removal should not exceed  $\frac{3}{4}$ ". Once removed to the required depth, the joints should be free of any loose material or dust prior to re-pointing.

All surrounding stone should be sufficiently moistened prior to re-pointing and extreme care should be taken to avoid damage or staining of stone units. The finish or striking of the joints should match the original in shape and texture throughout.

Proper curing of the mortar is essential for the future performance and may require intensive tending, misting, or complete encapsulation of the work area. It is critical to prevent the lime mortar from drying out too quickly and maintain the correct amount of moisture for curing.

## TREATMENT RECOMMENDATIONS

- Stone Unit Replacement

In a few cases, the extent of material loss or deterioration warrants the complete replacement of the masonry unit. Intent of complete unit replacement is to be a long-term repair and only warranted in areas that cannot be addressed with less invasive methodologies. Removal of the deteriorated unit(s) should be done with care to avoid any damage to the adjacent unit and vibration should be kept to a minimum. Like the Dutchman repair described above, the replacement stone unit should be installed using stainless steel threaded rod doweled into the brick substrate and/or adjacent sandstone masonry units. Setting mortar should be a natural hydraulic lime. All replaced stone units should be carved to match the original design from templates made from adjacent or similar masonry. As a comparable replacement stone, Berea Sandstone from Birmingham, Ohio was found to be similar in color, texture, and composition to the original Yaquina Bay Sandstone that is no longer available. This material is readily available through Cleveland Quarries based in Vermillion, Ohio, and could be used for all stone unit replacement.

### Site Drainage and Waterproofing

It was noted that basal deterioration of the stone masonry is most likely caused by landscaping practices and sub-grade moisture infiltration. Currently, plant landscaping can be observed adjacent to the stone masonry throughout the south and west elevations. It is recommended that the landscaping be redesigned and a sub-grade site drainage system be installed.

Shrubs, grass, and plantings should be removed to within four feet of the stone masonry and watering practices should prevent direct or sub-grade moisture infiltration of the stone. A sub-grade drainage system consisting of perforated pipe, gravel, and filter fabric should be installed at the entire south elevation. This system could be connected to existing storm drains, or “daylight” (meaning the drain line would discharge its storm water) at appropriate locations at the perimeter of the building.

Where applicable, all hardscaping should be removed from having contact with stone masonry or foundation. Although not such an issue with the south elevation, hardscaping at the east and west elevations trap sub-grade moisture creating capillary action and moisture intrusion into the above stone masonry units. It is recommended that a 12” gravel barrier be maintained between stone masonry and hardscaping/paving to create a breathable perimeter.

## TREATMENT RECOMMENDATIONS

- Survey:

Prior to any repairs or stabilization of the stone masonry, a comprehensive sounding survey will be performed of all masonry units with scaffolded access. The use of a rubber mallet or similar tool to systematically perform a sounding survey will locate incipient spalls and areas of delamination. Results of the survey will be transposed to elevation drawings and may include digital photography or other means of annotated documentation. The survey will be considered a baseline for proposed treatments and will include quantities, dimensions, and conditions.

### Window Replacement

Repairs and treatments to the stone surrounds will require removal of many existing double hung and other types of windows. Local wood window manufacturer, West Coast Architectural Millwork, based in Redwood City have measured the existing wood double hung windows and produced shop drawings to precisely match the dimensions of the existing. The glass has to meet current energy codes, but that is the only material change to these windows. See the specifications for more details. All other window types will be included in the final shop drawings.

### Seismic Retrofit of Portico

The intent of the restoration of the portico is primarily to mitigate life safety issues and secondarily to stabilize and restore the portico to its original condition. As previously described, differential settlement and deterioration has caused displacement and material loss of stone elements. The following treatments were developed to address these issues and retain as much original historic fabric as possible.

- Structural Design

A structural design has been provided to seismically retrofit the portico while preserving all remaining original material. The connection of the portico structure to the brick and stone masonry of the building is unknown at this time. The final structural design will be contingent on how the portico structure can be sufficiently connected to the main building, and this will be revealed by documenting the portico in even more detail.

## TREATMENT RECOMMENDATIONS

- Additional Documentation

Prior to any work performed, a comprehensive documentation phase should take place. This can be accomplished through digital photography and high definition 3-D laser scanning to create an accurate model of the portico. This documentation will assist in the structural design process, document existing conditions of all original material, and provide a data base for the dismantling and reinstallation. The proposed concept of the structural design is to create a steel substructure that conforms to the current seismic codes that the original unreinforced masonry can then be reconstructed to and around. The sequence being first the modification to the existing foundation, installation and connection of steel columns to the foundation and a radius top plate, and finally a positive connection to the actual masonry building.

With the steel structure in place, the original masonry will then be reconstructed and properly fastened through designed connections. When completed, there should be no visible evidence of the intervention and the historic masonry will be restored to its intended appearance.

- Testing of Existing Masonry

As part of the structural design, additional material testing will be required. Testing will include in-situ measurement of masonry mortar joint shear strength (flat-jack testing) and petrographic analysis of the Yaquina Bay Sandstone. The shear testing will require tests of both the stone cladding and brick masonry substructure.

- Roof Removal/Replacement

All clay tiles should be carefully removed, numbered, catalogued and salvaged for re-installation. Once removed, the tiles can be palletized and stored off-site. Removal of flashing at reglets should be accomplished without damaging the sandstone masonry. Once reconstruction of the portico has been completed, it is proposed that the roof be re-framed with a light gauge steel framing system to reduce weight at the portico structure. Design of the roof may include new flashing and waterproofing details. All salvaged tiles should be replaced with the appropriate fasteners and in a manner to precisely match the original roof.



## TREATMENT RECOMMENDATIONS

- Shoring and Protection of Decorative Plaster Dome

Before removal of the portico roof and dismantlement of the portico masonry, the decorative interior plaster dome must be protected and shored in place. A protection system of foam, compatible materials and plywood will be placed below the dome. This protection will then be supported by adjustable pipe scaffolding that will include pedestrian access to the main entrance door.

Actual support of the plaster dome will be accomplished by reinforcing the dome substructure and creating supports that will be connected to structural beams above. The structural beams will be installed as part of the overall scaffolding required for access to the entire portico. The intent is to stabilize and retain the plaster dome in its original location while all other work is performed.

- Dismantling of Portico

In coordination with the documentation, each masonry unit should be identified and permanently labeled before removal. Mortar joints should be carefully cut or removed to avoid damage to the stone and each unit removed with a minimum of vibration. Once removed, all units should be crated, protected, and palletized to be stored or repaired off-site until time for re-installation. Most of the masonry units can be removed and lowered by hand while removal of the six stone columns will require the use of a crane. Prior to removal, each column will be wrapped in foam or other soft material, encased in halved rigid pipe, secured together, and transported to a location for coring.

- Sandstone Repair/Replacement/Stabilization

Like the ashlar cladding, a comprehensive survey will be performed and documented after each masonry unit has been removed and cleaned. This work can take place off-site at a warehouse or protected workshop. All repair methodologies will be performed as previously described.

As a component of the structural design, all six columns will be center cored to accept 3" diameter stainless steel pipe. The wet coring will require a high degree of precision to prevent damage or breakage of the stone columns. Deterioration of column #3 will most likely require complete replacement due to the amount of existing material loss. Except for column #3, all remaining columns will be retained if not damaged by the center coring.

## TREATMENT RECOMMENDATIONS

- Portico Foundation

The geotechnical investigation indicates treatment or modification of the existing portico foundation is necessary. Options for modification include the installation of additional concrete piers or underpinning the existing foundation with a deeper/wider foundation.

- Structural Steel Installation

Per the proposed structural design, the steel substructure will be fabricated off-site and transported for installation. The column base plate will be installed and connected to the reinforced or modified foundation. The cored stone columns will then be set by use of a crane over the pre-installed stainless-steel pipe columns. Once set, the cored stone columns will be grouted with an appropriate mortar.

With the columns in place, the pre-fabricated steel radius top plate will be installed by use of a crane around the plaster dome and over the column connections. On-site welding and bolted connections will tie the top plate to the stainless-steel pipe columns. With the steel substructure in place and all structural connections completed, the top plate will then be structurally connected to the masonry of the main building. As previously explained, this connection will be determined as existing conditions are revealed by additional documentation methods.

- Reconstruction of Portico Masonry

Once the steel substructure is in place, the salvaged and repaired stone units can be transported back to the site for re-installation. Using the documentation, all original stone units should be carefully re-installed to their original locations. Due to the installation of the new steel substructure, re-installation of the stone will require custom steel clips, fasteners, and anchors that create a positive connection between the stone and the substructure.

## EXTERIOR IMAGES



IMAGE 5. Overview of South Elevation



IMAGE 6. Detail of deterioration due to landscape irrigation and capillary action, area where dutchman repair is required.





IMAGE 7. Detail of material loss at Portico Capital.



IMAGE 8. Deterioation and material loss at quoins.



IMAGE 9. Detail of material loss and incipient spalling at cornice.





IMAGE 10. Detail of deterioration and material loss at decorative window surrounds.



IMAGE 11. Spalling and delamination at ashlar masonry.





IMAGE 12. Material loss and environmental staining at portico column.



IMAGE 13. Detail of material loss and deterioration at at portico column, area where replacement is necessary.





IMAGE 14. Detail of deterioration and coating at portico egg and dart.



IMAGE 15. Detail of deterioration and previous Dutchman repair at column base.



IMAGE 16. Delamination and hairline cracking at ashlar masonry.





IMAGE 17. Displacement and structural cracking at portico.



IMAGE 18. Detail of displacement and severe deterioration at portico cornice.



IMAGE 19. Environmental staining and delamination at ashlar masonry.

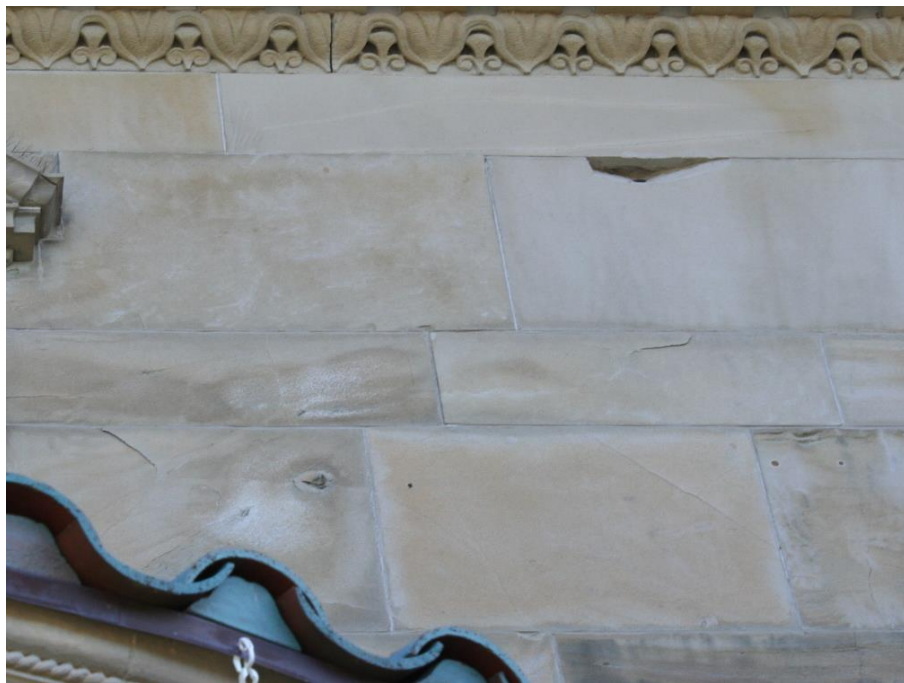


IMAGE 20. Examples of spalling, cracking, and staining at ashlar masonry.





IMAGE 21. Detail of delamination at decorative fenestration surrounds.





IMAGE 22. Detail of reglet installed in the mid to late 1990's at portico roof flashing.



IMAGE 23. Detail of deterioration from previous waterproofing deficiencies.

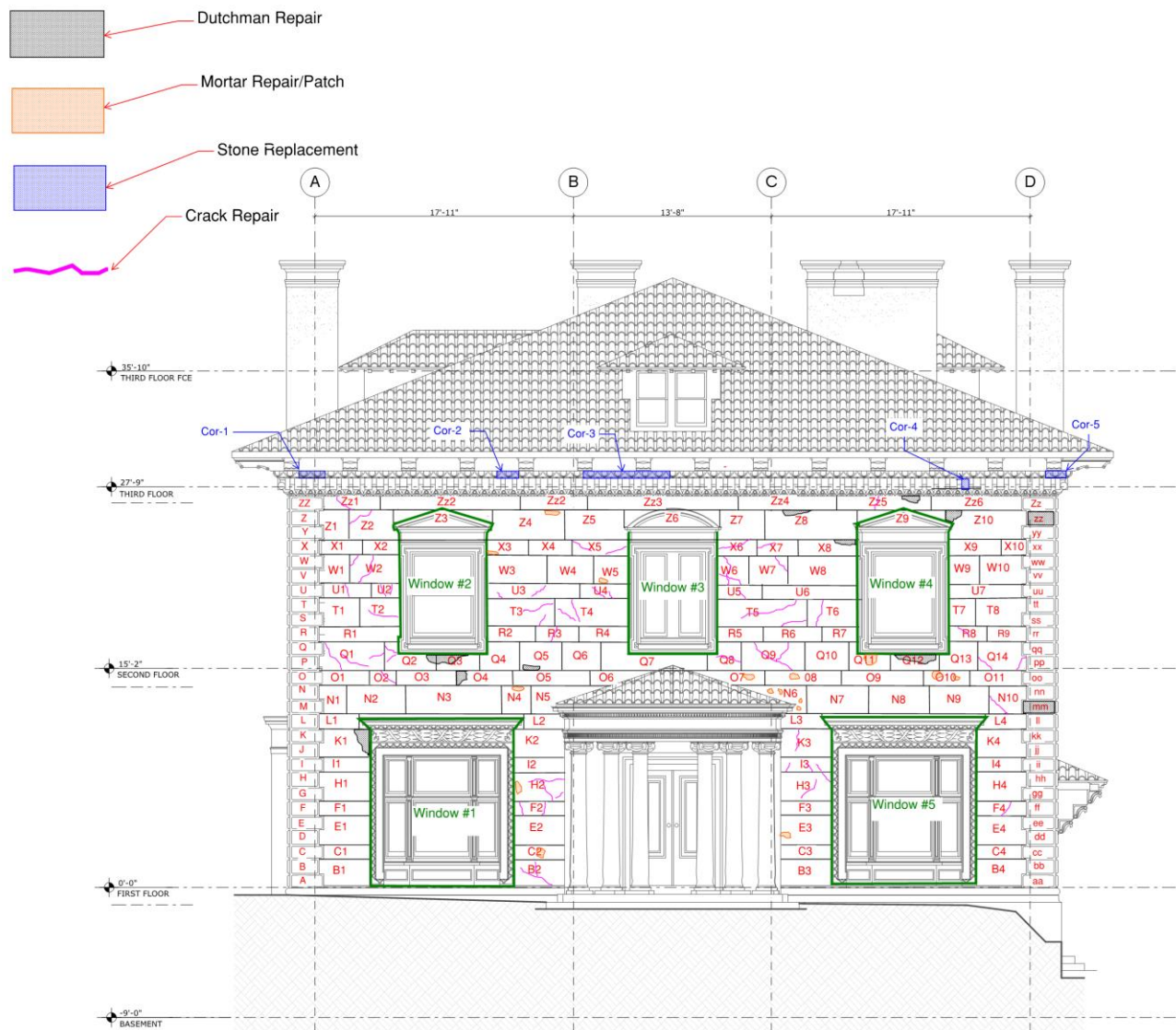


IMAGE 24. Overview of decorative plaster dome at interior of portico. This area will be protected and suspended in place during the stone restoration work.



## DOCUMENTATION AND SURVEY

The South elevation, including the portico, was visually surveyed by Quarry House in 2017 and again in 2018. There is approximately 81 square feet of replacement stone proposed for the South elevation. There is approximately 40 square feet of dutchman repairs proposed for the South elevation. This information is tabulated below in the following tables.



South Elevation Quoins, Cladding, Cornice, and Window Surrounds

FIGURE 2



## South Elevation Quoins

Quoin Unit	Pinning/Delamination (SF)	Dutchman (SF)
ZZ	0	0
Z	2	
Y	2.5	
X	2	
W	2.5	
V		2
U		2.5
T		2
S		2.5
R		2
Q		
P		2.5
O	2.5	
N		2
M		2.5
L		2
K		
J		2
I		
H	2	
G	2.5	
F	2	
E		2.5
D	2	
C		2.5
B		2
A	0	0
	20	29

Quoin Unit	Pinning/Delamination (SF)	Dutchman (SF)
Zz		
zz		2
yy		
xx		2.5
ww	2.5	
vv	2	
uu		
tt		
ss		
rr		
qq	2.5	
pp	2	
oo	2.5	
nn	2	
mm		2.5
ll	2	
kk		
jj	2	
ii	2.5	
hh	2	
gg		2.5
ff	2	
ee	2.5	
dd		
cc	2.5	
bb		
aa		
	29	9.5

Pinning/Delamination Totals 49  
Dutchman/Re-facing Totals 38.5



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



### Ashlar Masonry Survey Take Off

Unit #	Replacement (SF)	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
C1					1	
Zz5				1	1	
Z2					1	
Z4			1			
Z8				1		
Z10				1		
X3			0.75			
X5					2	
X6		2				
X7		1				
W2						3
W5			0.5			
W6		2				
W7					2.5	
W8			1	1.5		
U1					1	
U2						2
U3						3
U4					1	
U5					1	
T2					7	
T3					4	
T4					6	
T5					4	
T6						2
R3					1	
R8					1	
Q1					3	4
Q2				0.5		2
Q3				2		



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



### Ashlar Masonry Survey Take Off

Unit #	Replacement (SF)	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
Q8						3
Q9		3				
Q11				1		
Q12				2		
Q14						2
O2						1
O4				0.5		
O7			0.5			
O8			1			
O10			1			
N4			0.5			
N6			2			
N10						2
K1				2		
K3					2	
I3					3	1
H2			1			4
H3						3
F2					2	
F4						1
E3			0.5			
C2			0.5			
B2					4	
<b>Totals</b>		<b>8</b>	<b>10.25</b>	<b>12.5</b>	<b>47.5</b>	<b>33</b>

## 2622 Jackson St. Exterior Masonry Survey

**Elevation:** South  
**Element:** Cornice  
**Unit #:** Cor-1  
**Overall Dimension:** 6" x 24"  
**Existing Conditions:** Deterioration, cracking, and failure of cornice egg and dart

**Priority:** High

Treatment	Unit	Quantity
Stone Replacement	SF	1
Pinning of Delamination/Detachment	SF	
Mortar Repair/Patch	SF	
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	
Crack Repair (Scissor Pinning)	Lf	

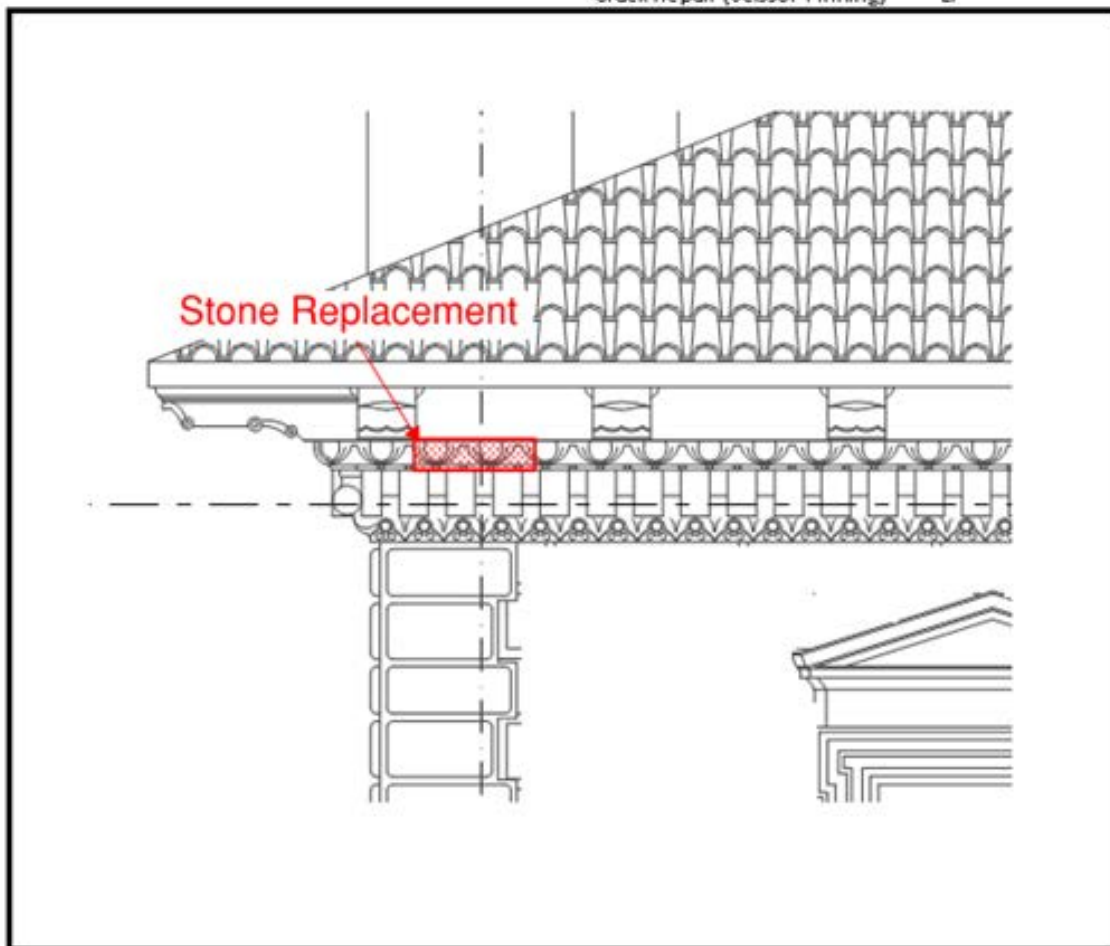


Figure 8.

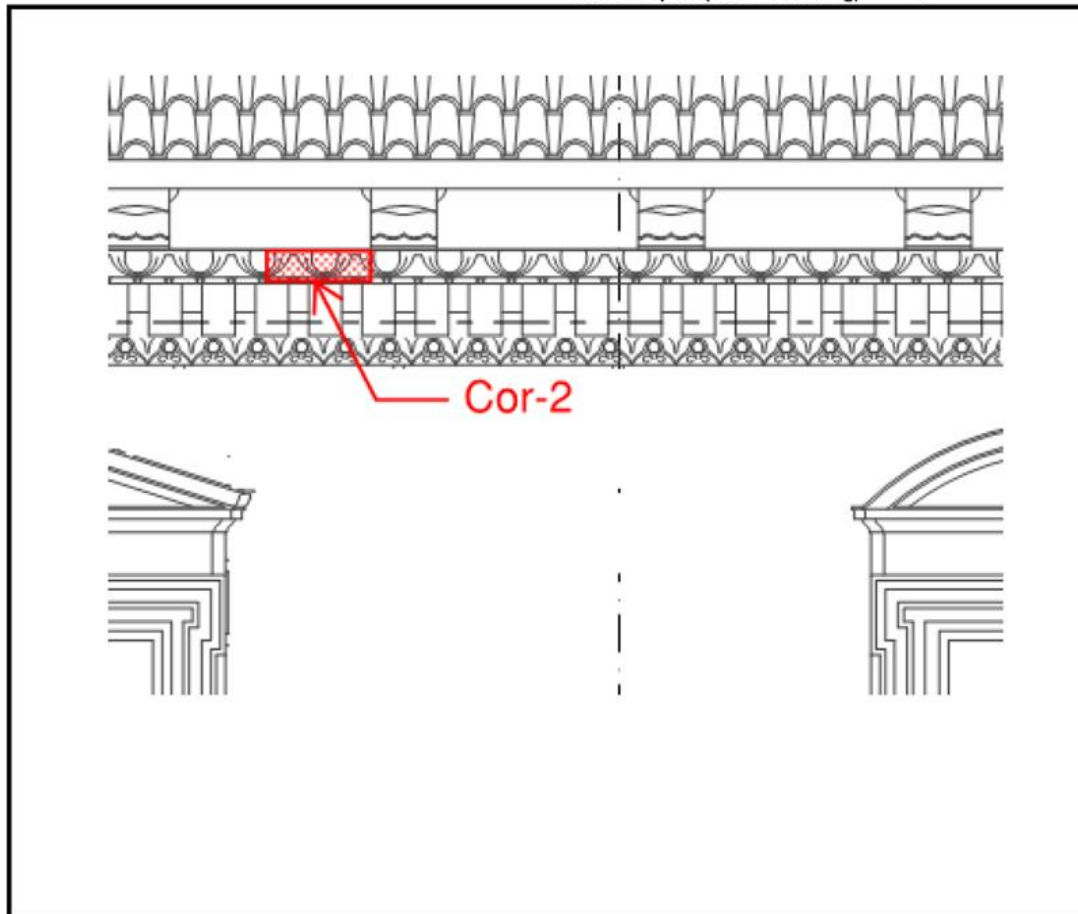


## 2622 Jackson St. Exterior Masonry Survey

Elevation: South  
Element: Cornice  
Unit #: Cor-2  
Overall Dimension: 6" x 24"  
Existing Conditions: Deterioration, cracking, and failure of cornice egg and dart

Priority: High

Treatment	Unit	Quantity
Stone Replacement	SF	1
Pinning of Delamination/Detachment	SF	
Mortar Repair/Patch	SF	
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	
Crack Repair (Scissor Pinning)	Lf	

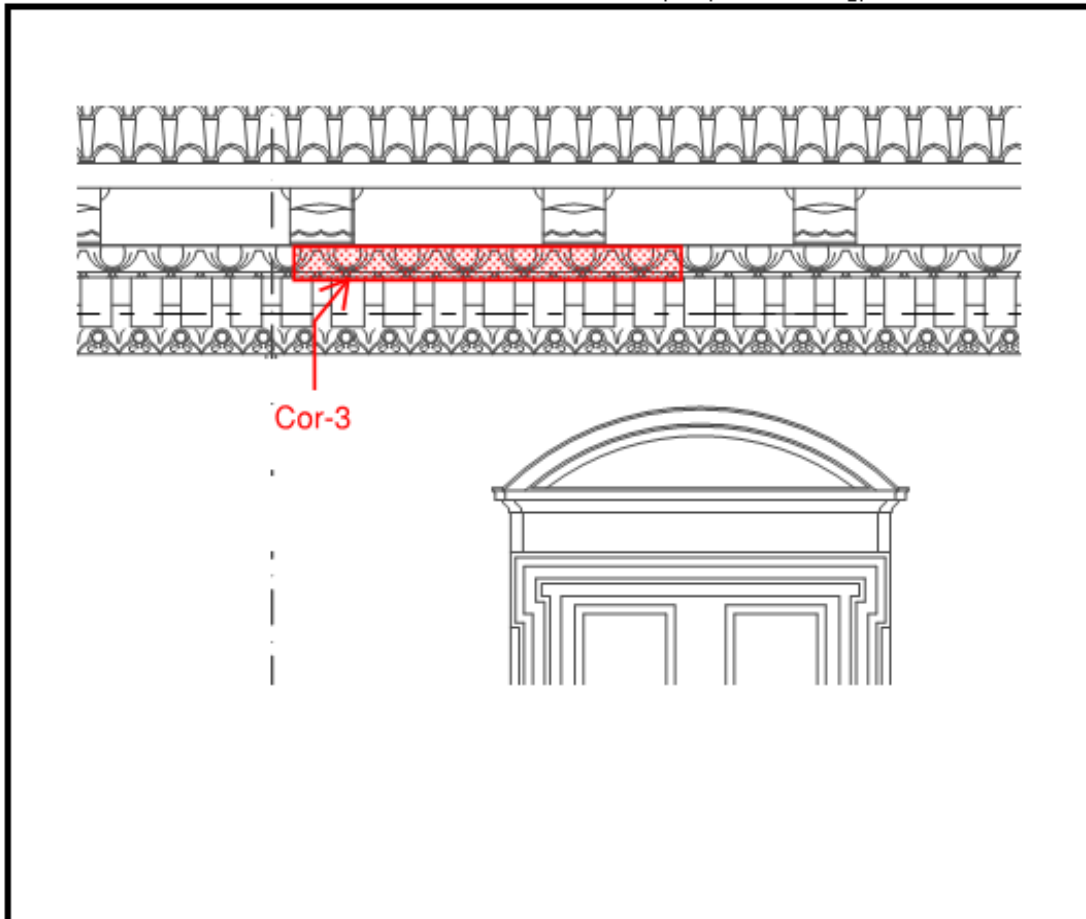


## 2622 Jackson St. Exterior Masonry Survey

**Elevation:** South  
**Element:** Cornice  
**Unit #:** Cor-3  
**Overall Dimension:** 6" x 6'  
**Existing Conditions:** Deterioration, cracking, and failure of cornice egg and dart  
 Includes fractured dentil below egg and dart

**Priority:** High

Treatment	Unit	Quantity
Stone Replacement	SF	3
Pinning of Delamination/Detachment	SF	1
Mortar Repair/Patch	SF	
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	
Crack Repair (Scissor Pinning)	Lf	

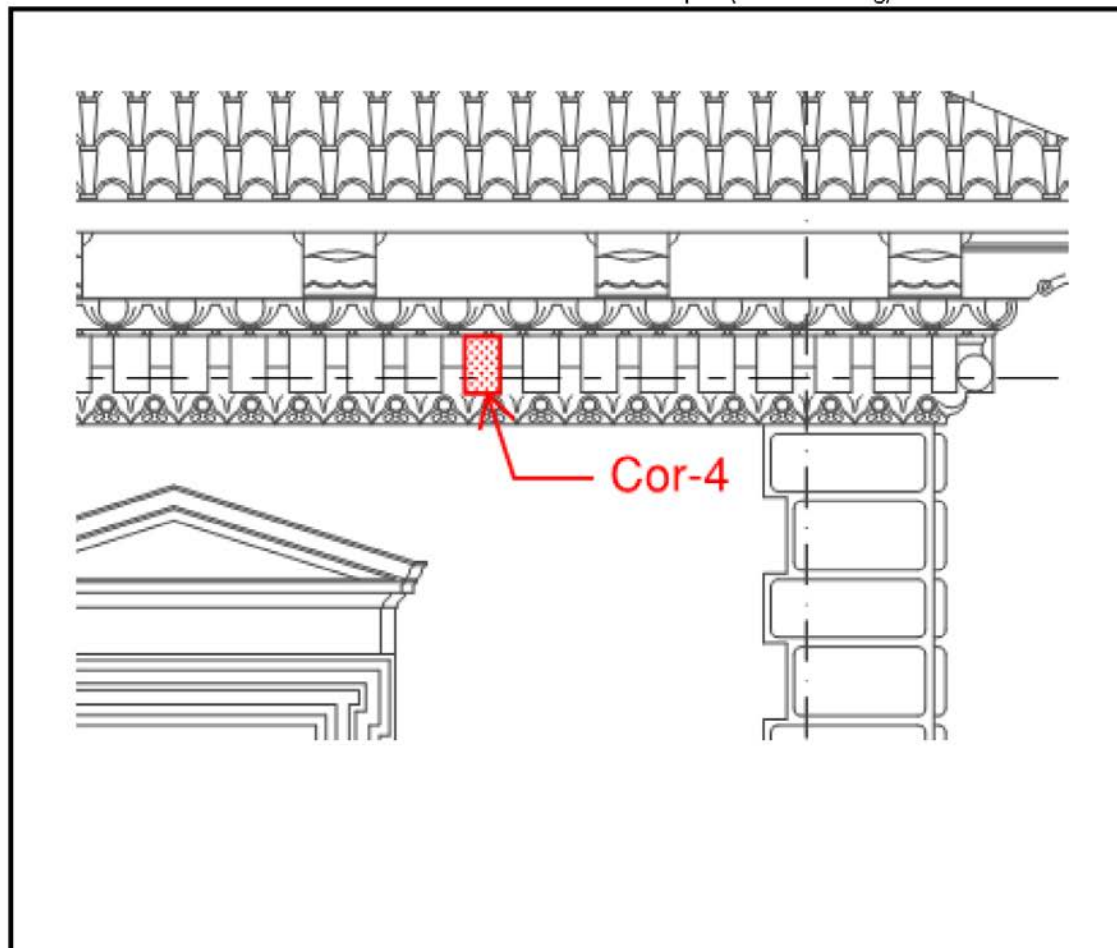


## 2622 Jackson St. Exterior Masonry Survey

Elevation: South  
Element: Cornice  
Unit #: Cor-4  
Overall Dimension: 1' x 1'  
Existing Conditions: Delamination/fracture of cornice dentil

Priority: High

Treatment	Unit	Quantity
Stone Replacement	SF	
Pinning of Delamination/Detachment	SF	1
Mortar Repair/Patch	SF	
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	
Crack Repair (Scissor Pinning)	Lf	



## 2622 Jackson St. Exterior Masonry Survey

**Elevation:** South  
**Element:** Cornice  
**Unit #:** Cor-5  
**Overall Dimension:** 6" x 2'  
**Existing Conditions** Deterioration, cracking, and failure of cornice egg and dart  
 Includes fractured dentil below egg and dart

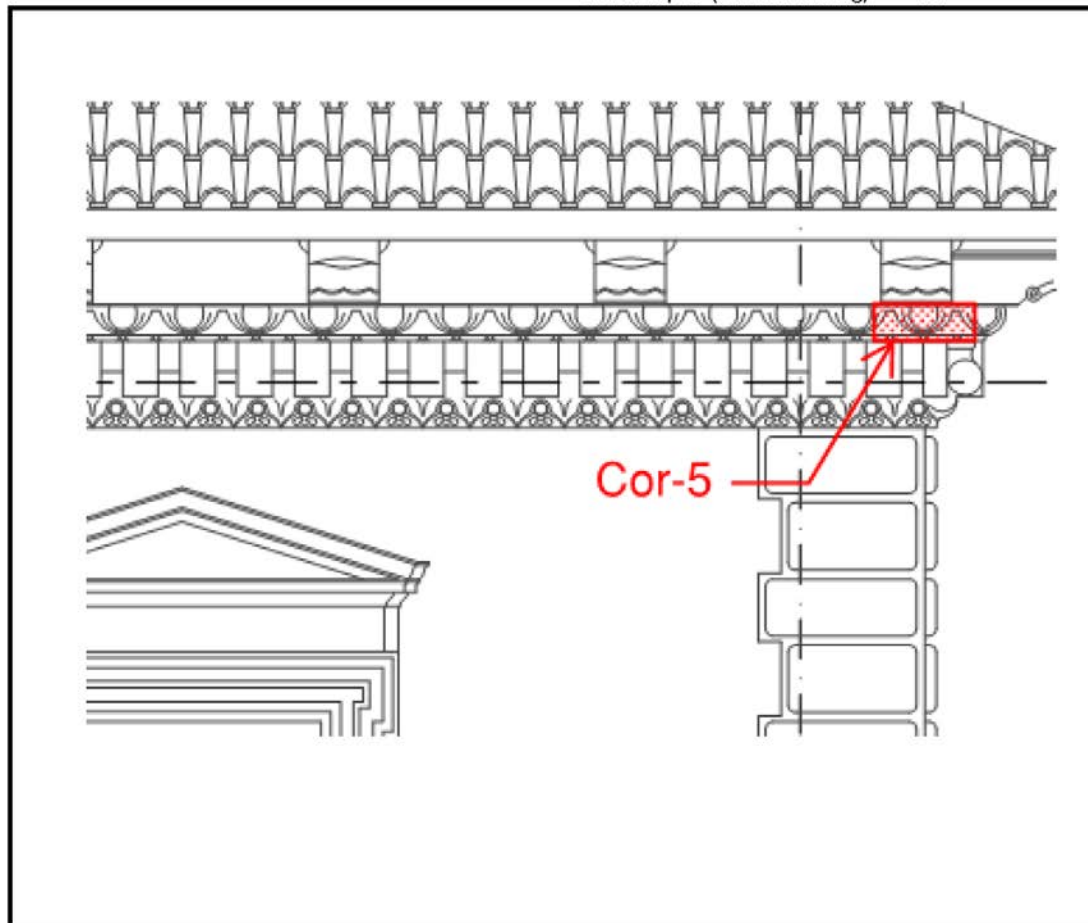
**Priority**

High

**Treatment**

**Unit** **Quantity**

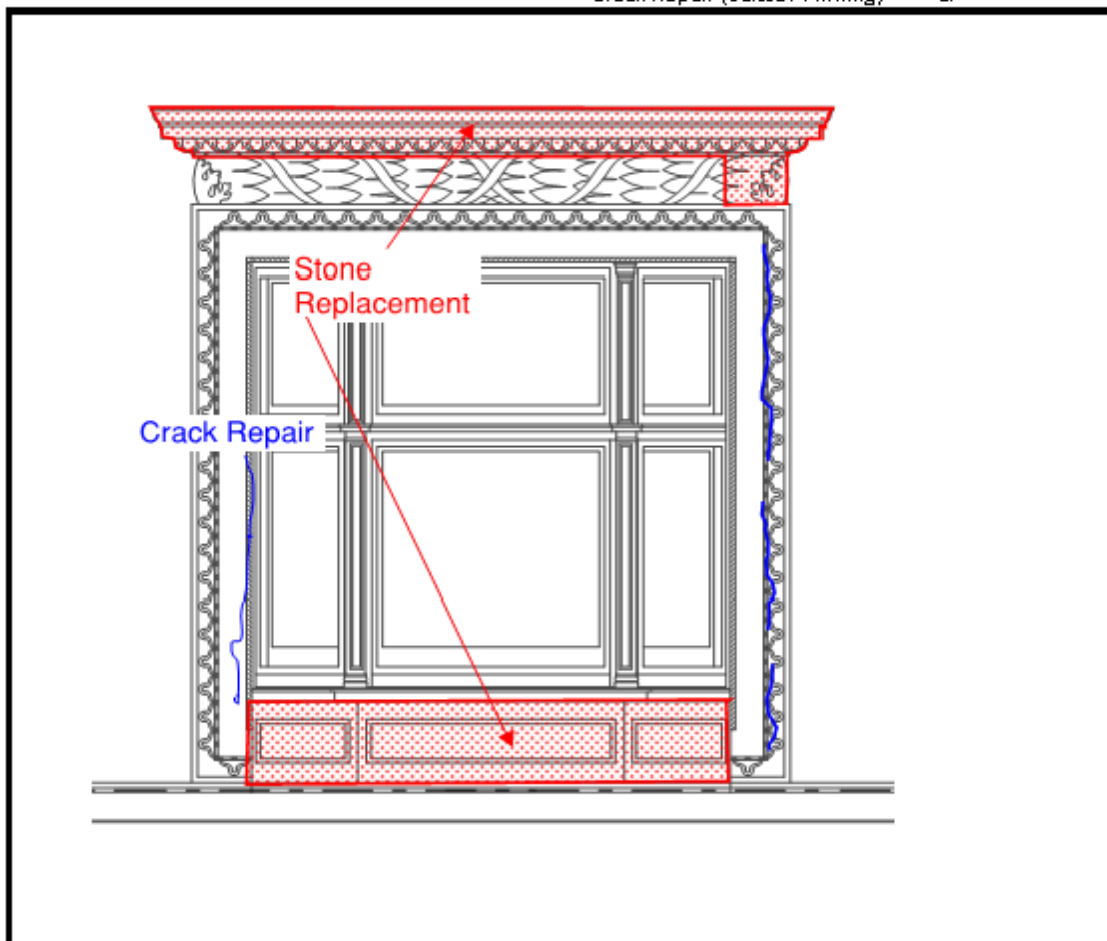
Stone Replacement	SF	1
Pinning of Delamination/Detachment	SF	
Mortar Repair/Patch	SF	
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	
Crack Repair (Scissor Pinning)	Lf	



## 2622 Jackson St. Exterior Masonry Survey

Elevation:	South
Element:	Window Surround
Unit #:	Window -1
Overall Dimension:	
Existing Conditions	Severe deterioration and failure of stone at base panels and cornice. Includes crack repair at decorative stone.
Priority	High
Treatment	

	Unit	Quantity
Stone Replacement	SF	18
Pinning of Delamination/Detachment	SF	
Mortar Repair/Patch	SF	
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	12
Crack Repair (Scissor Pinning)	Lf	



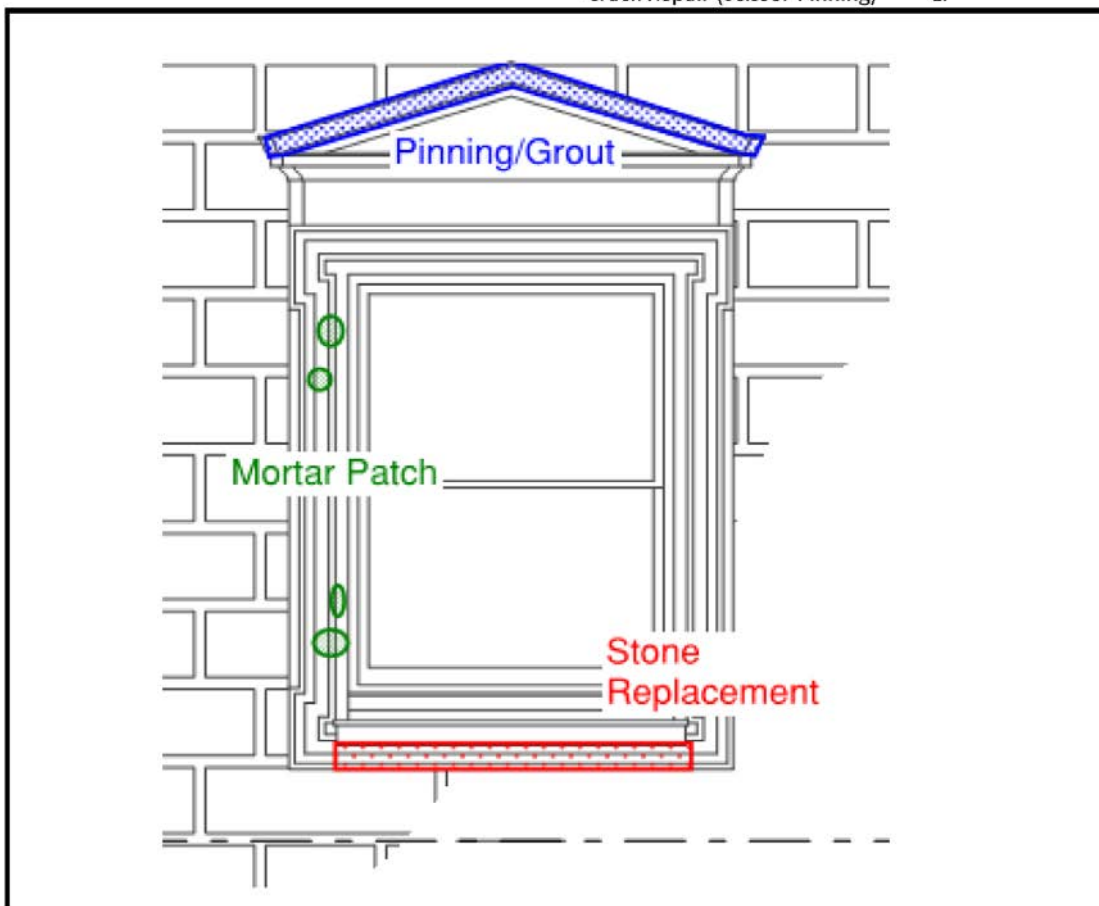
## 2622 Jackson St. Exterior Masonry Survey

Elevation: South  
Element: Window Surround  
Unit #: Window -2  
Overall Dimension:

Existing Conditions Severe deterioration and failure of stone at sill. Cracking, delamination, and deterioration at pediment and decorative surround.

Priority High

Treatment	Unit	Quantity
Stone Replacement	SF	3
Pinning of Delamination/Detachment	SF	
Mortar Repair/Patch	SF	2
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	8
Crack Repair (Scissor Pinning)	Lf	



## 2622 Jackson St. Exterior Masonry Survey

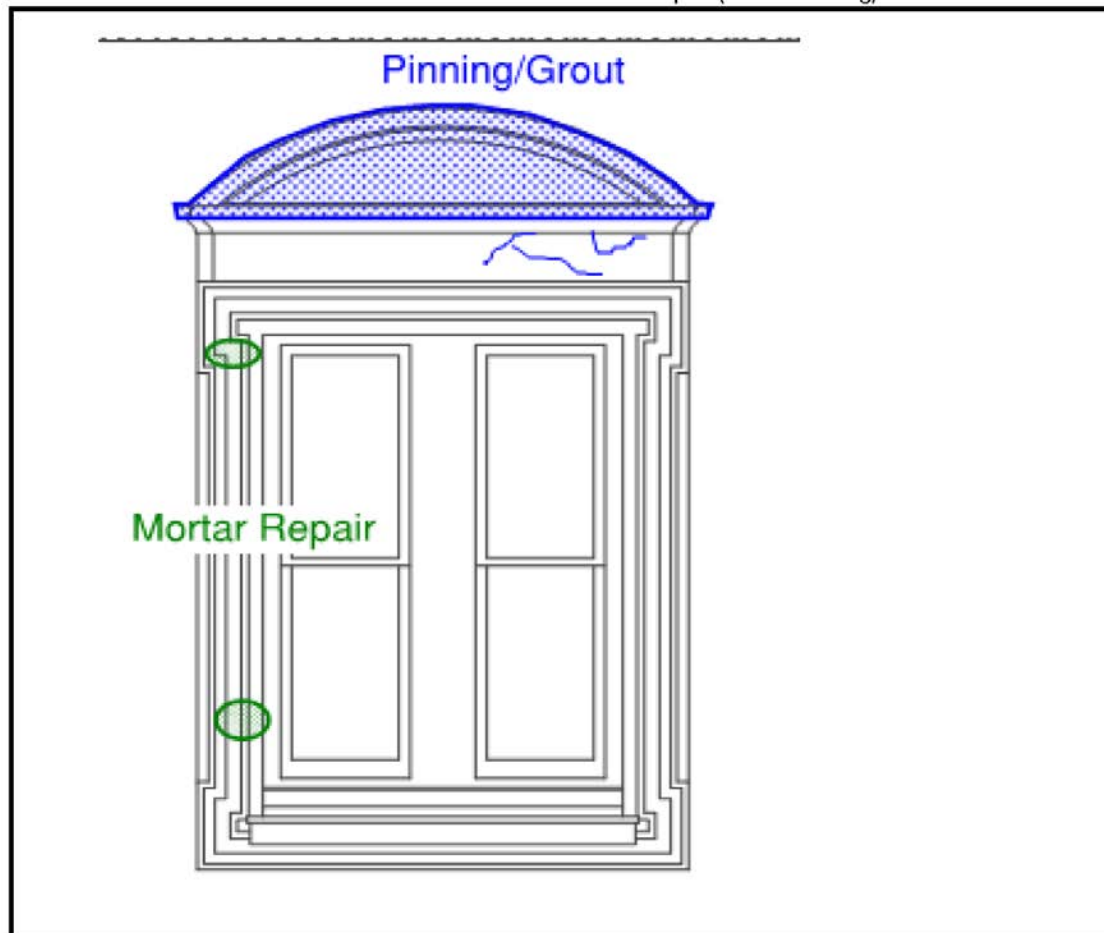
Elevation: South  
Element: Window Surround  
Unit #: Window -3

Overall Dimension:

Existing Conditions Stone deterioration and cracking at pediment.  
Deterioration and loss at decorative stone surround.  
surround.

Priority High

Treatment	Unit	Quantity
Stone Replacement	SF	3
Pinning of Delamination/Detachment	SF	7
Mortar Repair/Patch	SF	2
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	4
Crack Repair (Scissor Pinning)	Lf	





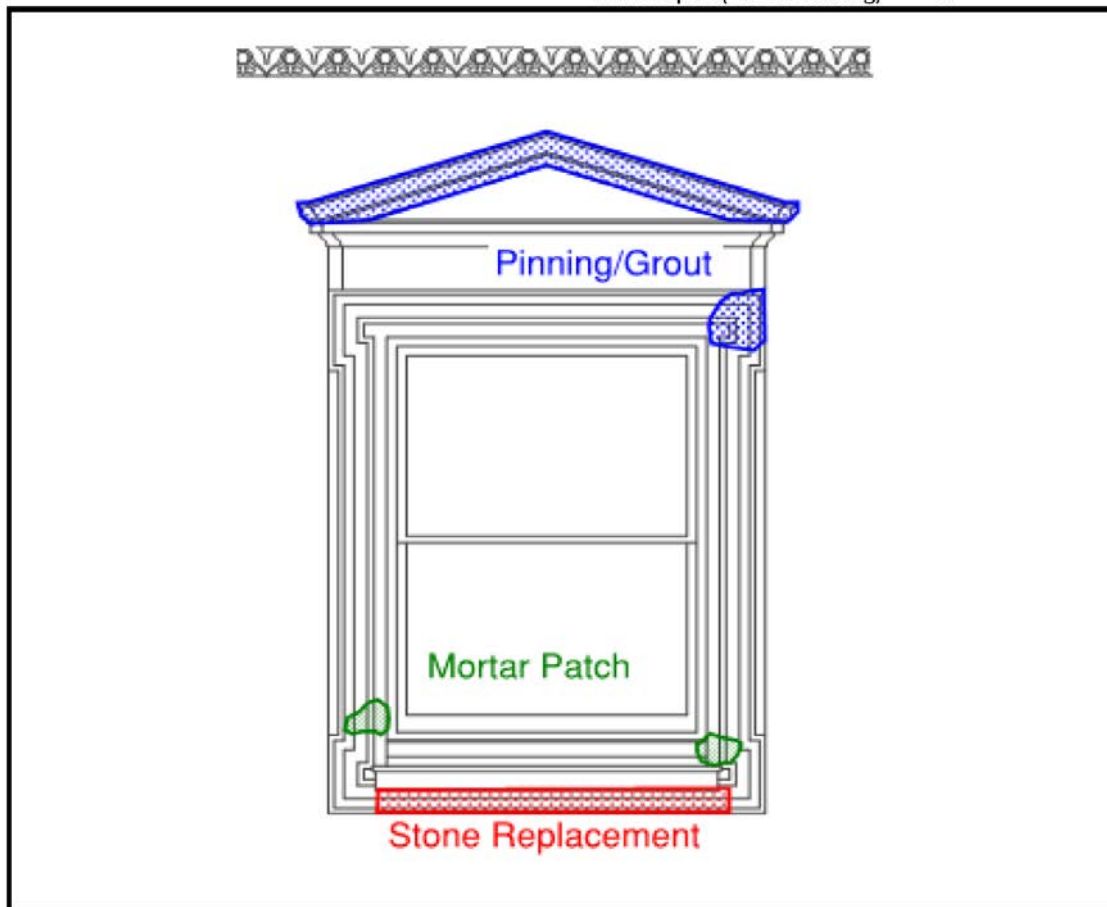
## 2622 Jackson St. Exterior Masonry Survey

Elevation: South  
Element: Window Surround  
Unit #: Window -4  
Overall Dimension:

Existing Conditions Severe deterioration and failure of stone at sill. Cracking, delamination, and deterioration at pediment and decorative surround.

Priority High

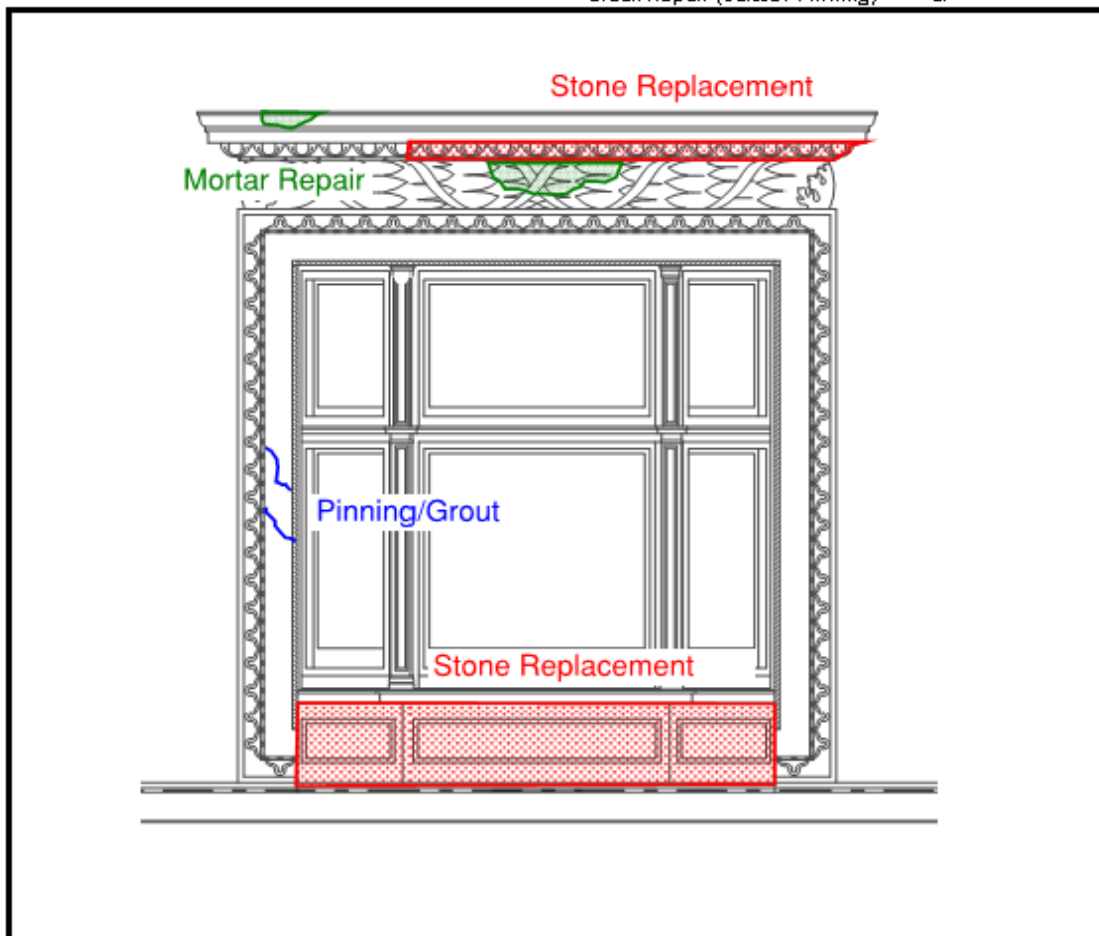
Treatment	Unit	Quantity
Stone Replacement	SF	3
Pinning of Delamination/Detachment	SF	4
Mortar Repair/Patch	SF	1
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	
Crack Repair (Scissor Pinning)	Lf	

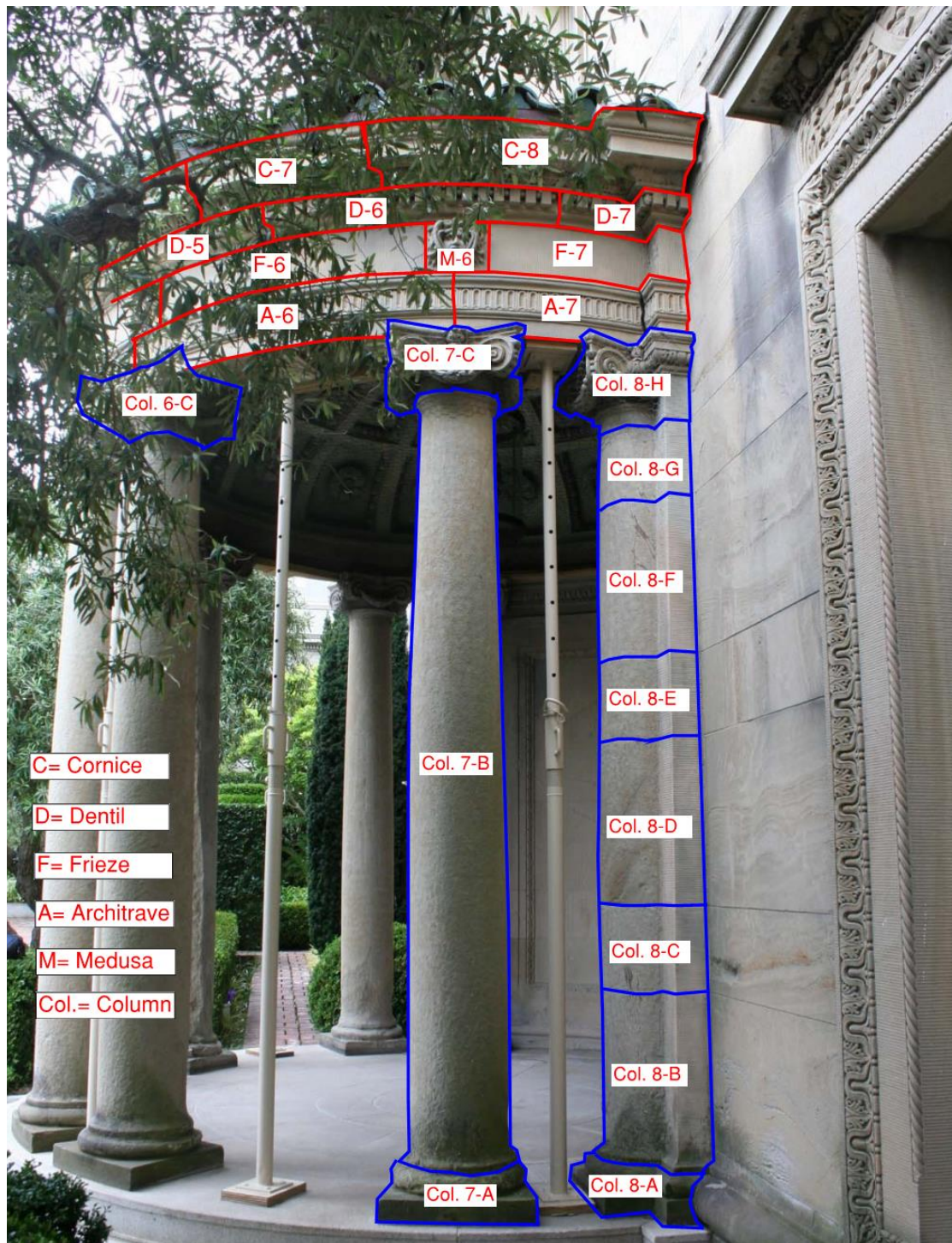


## 2622 Jackson St. Exterior Masonry Survey

Elevation: South  
Element: Window Surround  
Unit #: Window -5  
Overall Dimension:  
Existing Conditions: Severe deterioration and failure of stone at base panels and cornice. Includes crack repair at decorative surround and mortar repair at failed decorative surround.  
Priority: High

Treatment	Unit	Quantity
Stone Replacement	SF	3
Pinning of Delamination/Detachment	SF	4
Mortar Repair/Patch	SF	1
Dutchman Repair	SF	
Crack Repair (grouting)	Lf	
Crack Repair (Scissor Pinning)	Lf	





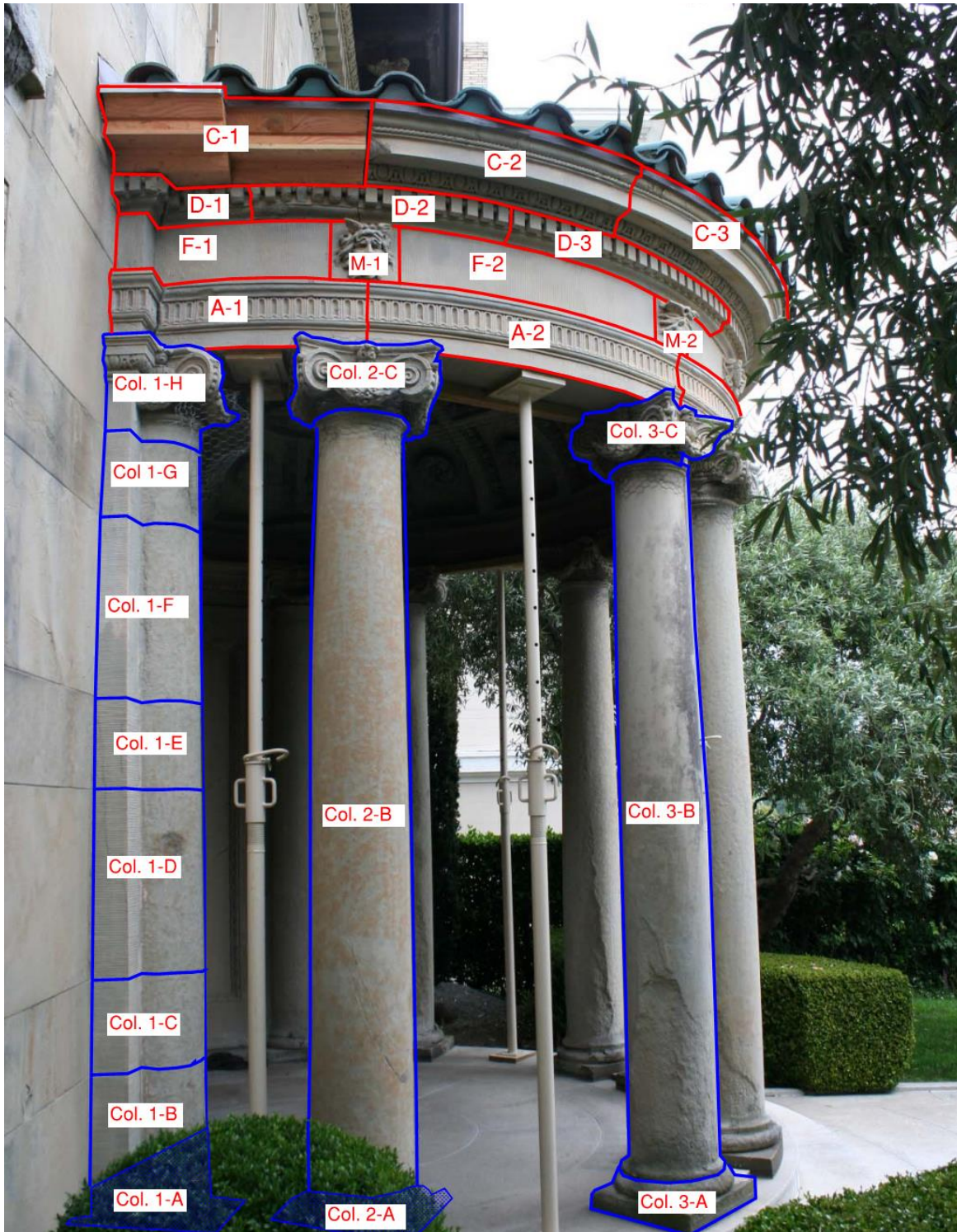
Portico  
 FIGURE 3





Portico  
 FIGURE 4





Portico  
 FIGURE 5



### Portico Survey Take Off

Unit #	Replacement (SF)	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)	Capital Rehab (Each)	Medusa Rehab (Each)
<b>Cornice</b>								
C1	3							
C-2	3		1		2			
C-3								
C-4								
C-5			1					
C-6					1			
C-7	2							
C-8	4							
<b>Dentil</b>								
D-1	2				1			
D-2	2							
D-3				0.5				
D-4				0.5	1			
D-5				0.5				
D-6								
D-7								
<b>Frieze</b>								
F-1	2					2		
F-2					1			
F-3					1			
F-4					2	1		
F-5					1			
F-6								
F-7					2	1		
<b>Medusa</b>								
M-1								1
M-2								1





### Portico Survey Take Off

Unit #	Replacement (SF)	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)	Capital Rehab (Each)	Medusa Rehab (Each)
M-3								1
M-4								1
M-5								1
M-6								1
<b>Architrave</b>								
A-1	3		1			1.5		
A-2					1			
A-3					2	1		
A-4								
A-5								
A-6			1					
A-7	3				2			
<b>Column</b>								
Col. 1A			2					
Col. 1B	4							
Col. 1C								
Col. 1D		2	1					
Col. 1E		1						
Col. 1F		2						
Col. 1G								
Col. 1H							1	
Col. 2A	2							
Col. 2B								
Col. 2C							1	
Col. 3A	2							
Col. 3B	5							
Col. 3C							1	



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



### Portico Survey Take Off

Unit #	Replacement (SF)	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)	Capital Rehab (Each)	Medusa Rehab (Each)
Col. 4A								
Col. 4B								
Col. 4C							1	
Col. 5A	2							
Col. 5B								
Col. 5C							1	
Col. 6A	2							
Col. 6B								
Col. 6C							1	
Col. 7A	2							
Col. 7B								
Col. 7C							1	
Col. 8A	2							
Col. 8B								
Col. 8C							1	
Col. 8D		2						
Col. 8E		1						
Col. 8F								
Col. 8G								
Col. 8H								
<b>TOTAL</b>	<b>40</b>	<b>8</b>	<b>7</b>	<b>1.5</b>	<b>17</b>	<b>6.5</b>	<b>8</b>	<b>6</b>

The East elevation was surveyed by Quarry House in November 2018 as well as March 2019. There is approximately zero square feet of replacement stone on the East elevation. There is approximately 81.25 square feet of dutchman repairs proposed for the East elevation. This information is tabulated below in the following tables.



FIGURE 6  
East Elevation



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## East Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning		Small Crack Repair/Grout		Large Crack Repair/Scissor Pin (LF)
	Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	(LF)	
ZZ4				2	
ZZ6				1	
ZZ7				1.5	
ZZ10				1	
ZZ12				1	
ZZ13				2	
ZZ14				1	
Z3				2	
Z4				2	
Z5				4	
Z7				2.5	
Z8				2	
Z10				2.5	
Z11				2	
X1		1.5			
X3	1				
X5				1.5	
X9				0.5	
X10				5	
W3				2	
W9				3	
W12				2	
U2				3.5	
U7				3.5	
U9				0.75	
T1				1.5	
T3				2.5	
T4				1	
T8				1	
T9				2.5	



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



### East Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
T10				2.5	
T11				4	
T14				1	
R5				1.5	
R8				2	
R12				1	
Q3				4	
Q4				3	
Q6				2	
Q7				2.5	
Q8				4	
Q10				2	
Q11				1	
Q13				1.5	
Q14				3	
O3				1	
O10				2	
O11				2	
O13				1	
O16				1	
N1	2				
N5				4	
N6				2	





EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## East Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
N7				1	
N8				5	
N9				4	
N10				2.5	
N11		2		3	
N12		1.5		2	
N13		2.5			
N14		2		4	
L1				1	
L2		0.75			
L7				1	
L9				1	
K1		1			
K2				3.5	
K3				4	
K6				3	
K9		0.25			
K12				3	
I3				1	
I5				2	
I8		0.5			
I11				1	
H2				2	
H5		0.5			
H6		1.5			
H8				3	
H9	1			2	
F1		0.25		2	
F6				1	



## East Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
F8		0.75			
F10				1	
E2		0.25		2.5	
E6		1			
C2				2.5	
C7		1			
C9		0.5			
C11		0.25			
B1		1		1	
B8		0.5			
B9				1.5	
B10		1			
B11		2			
B12		1			
B13		0.25			
Be2-Be3	14				
Be4-Be7	11				
Bf9-Bf11	2.5				
Bf8		1			
Be11		0.25			
Be14		1			
Be15		0.5			
Be16	2.5				
Bc1-Bc2		0.5	12		
Bd8	0.5				
Bd9		0.25			
Bc14	6				

## East Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
Win-1	4	1	4		
Win-2	2	0.5			
Win-3	3	0.25		4	
Win-5		2			
Win-7	4				
Door-1		0.25			
Win-8		0.25			
Win-9			3		
Win-11			4		
Win-14			4		
Bb7			3		
Ba2-Ba3			18		
<b>TOTALS</b>	53.5	31.5	48	169.25	0



East Elevation Quoins

FIGURE 7



### East Elevation Quoin

Quoin Unit	Pinning/Delamination (SF)	Mortar Repair (SF)	Dutchman Repair (SF)	Crack Repair (LF)
ZZ				
Z				
Y				2
X				
W				
V				
U				
T				
S				0.5
R				
Q				1.5
P				
O				
N				1
M				
L				
K				
J				
I				
H				1.5
G				
F				2
E				1
D				1.5
C		0.5		
B				
A				
<b>TOTALS</b>	<b>0</b>	<b>0.5</b>	<b>0</b>	<b>11</b>

### East Elevation Quoins

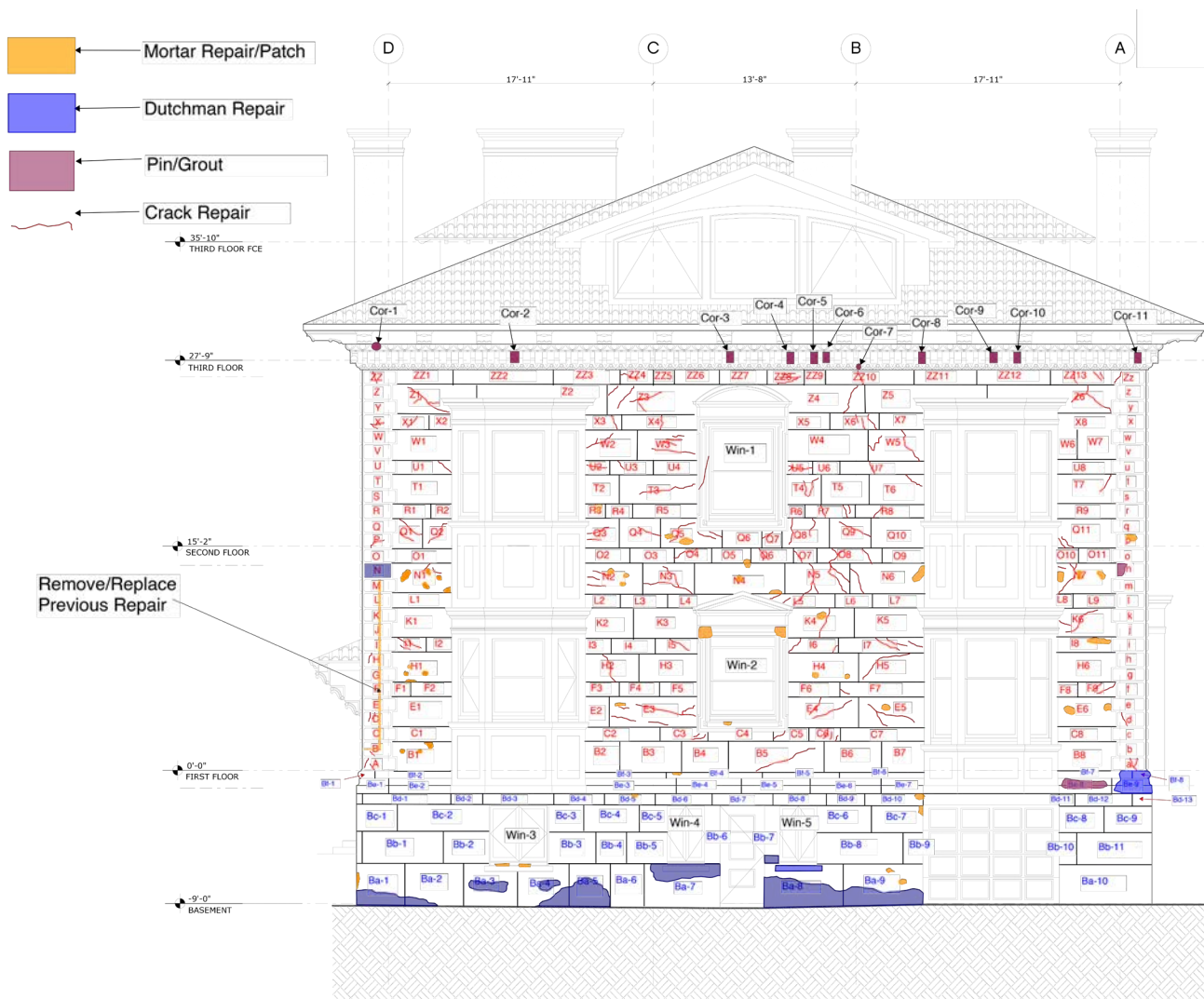
Quoin Unit	Pinning/Delamination (SF)	Dutchman (SF)
ZZ		0.5
Z		0.75
Y		0.75
X		0.5
W		0.5
V	0.75	
U		0.75
T		0.75
S		0.75
R		1
Q		0.5
P		0.5
O		0.5
N		0.5
M	1	
L		2.5
K		1
J		1
I		2.5
H		2
G		2.5
F		2
E		2.5
D		2
C		2.5
B		2
A		2.5
	<b>1.75</b>	<b>33.25</b>

Pinning/Delamination Totals 12.25  
Dutchman/Re-facing Totals 72.5

### East Elevation Cornice

Cornice Unit	Pinning/Delamination (SF)	Mortar Repair (SF)	Dutchman Repair (SF)	Crack Repair (LF)
Cor-1	1			1
Cor-2	1			1
Cor-3	1			0.5
Cor-4	1			1
Cor-5	1			1
Cor-6	1			1
<b>TOTALS</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>5.5</b>

The North elevation was visually surveyed by Quarry House. There is approximately zero square feet of replacement stone on the North elevation. There is approximately 44.75 square feet of dutchman repairs proposed for the North elevation. This information is tabulated below in the following tables.



North Elevation

FIGURE 8





EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## North Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
ZZ4				1	
ZZ8				3	
ZZ10				1	
ZZ13				3	
Z1				5	
Z3				6	
Z4				2	
Z6				4	
X1				1	
X3				1	
X4				1	
X6				3	
W2				3	
W3				6	
W5				4	
U1				1	
U2				2	
U3				1	
U5				2	
U7				1	
T3				4	
T4				3	
T6				2	
T7				2	
R3		1			
R7				3	
R8				1	
Q1				3	
Q2				2	
Q3				2	



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## North Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
Q4				2	
Q5		1		4	
Q7				1	
Q8				3	
Q9				3	
Q11				2	
O4				2	
O5		0.5			
O6				1	
O7				1	
O8				2.5	
N1		3		1	
N2		1		2	
N3				3.5	
N4		2			
N5				7	
N6		1		5	
N7		1		3	
L5				2	
K4		0.5		2	
K6				3	
I1				3	
I5				1	



### North Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
I6				1.5	
I7				5	
I8		1			
H1		2			
H2				2.5	
H4		1			
H5				3.5	
F7				1	
F9				2	
E3		0.5		9	
E4				4	
E5		0.5		4	
E6		0.5			
C3				1	
C5				0.5	
C6				2.5	
B1		1.5			
B5				4	
Bf4		0.5			
Be8	3	0.5			
Be9			4		
Bd5		0.5			
Ba1			4		
Ba2			1		
Ba3			3		
Ba4			4		
Ba5			6		
Ba7			5.25		

### North Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
Bb7			1		
Ba8			9.5		
Ba9			5		
Bd10		0.25			
W1		0.25			
W2		2.5			
W3		1			
<b>TOTALS</b>	3	23.5	42.75	167.5	0



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## North Elevation Quoins

Quoin Unit	Pinning/Delamination (SF)	Mortar Repair (SF)	Dutchman Repair (SF)	Crack Repair (LF)
ZZ		1		
Z				
Y				
X		1		
W				
V				
U				
T				
S				
R				
Q				
P		2		
O				
N			2	
M		1		
L		1		
K		1		
J		1		
I		1		
H		1		0.5
G		1		
F		1		
E		1		
D		1		1.5
C		1		
B		1.5		0.5
A				1.5
<b>TOTALS</b>	<b>0</b>	<b>16.5</b>	<b>2</b>	<b>4</b>



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## North Elevation Quoins

Quoin Unit	Pinning/Delamination (SF)	Mortar Repair (SF)	Dutchman Repair (SF)	Crack Repair (LF)
Zz				1
z				
y				
x				
w				
v				
u				
t				
s				
r				
q				
p				0.5
o				
n	1			
m				
l				
k				
j				
i				
h				
g				
f				
e				
d				1
c				
b				
a				1.5
<b>TOTALS</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>





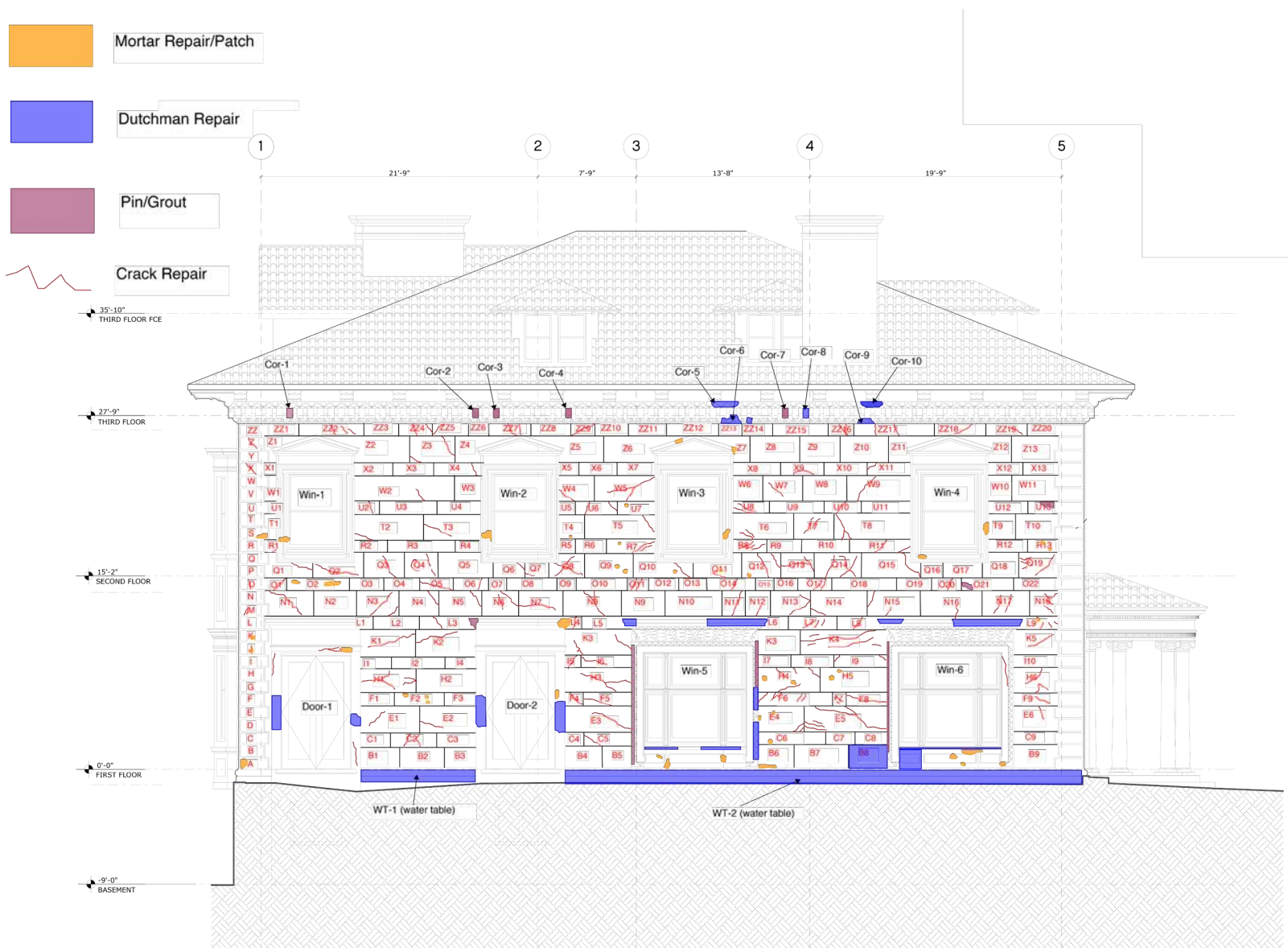
EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## North Elevation Cornice

Cornice Unit	Pinning/Delamination (SF)	Mortar Repair (SF)	Dutchman Repair (SF)	Crack Repair (LF)
Cor-1	1			1
Cor-2	1			1
Cor-3	1			1
Cor-4	1			1
Cor-5	1			1
Cor-6	1			1
Cor-7	1			1
Cor-8	1			1
Cor-9	1			1
Cor-10	1			1
Cor-11	1			1
<b>TOTALS</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>11</b>

The West elevation was visually surveyed by Quarry House. There is approximately zero square feet of replacement stone on the West elevation. There is approximately 128.25 square feet of dutchman repairs proposed for the West elevation. This information is tabulated below in the following tables.



West Elevation

FIGURE 9



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## West Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
ZZ2				3	
ZZ4				1.5	
ZZ5				1	
ZZ7				2	
ZZ9				1.5	
ZZ16				2	
ZZ17				2	
ZZ18				1.5	
ZZ19				1	
Z3				3	
X4				1	
X9				1.5	
X11				1	
W2				1.5	
W4				1	
W5				4	
W7				2.5	
W9				3	
U2				1	
U6				2	
U7		0.5			
U8				3	
U10				1	
U13	2				
T2				2	
T3				2.5	
T4		0.25			
T5				1.5	
T6				2	
T7				2.5	



EXTERIOR STONE RESTORATION  
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## West Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
T8				3	
R1				0.5	
R7		0.25		2.5	
R8				3	
R11				2	
R13		0.5			
Q1				1	
Q2				3	
Q3				3	
Q4				4	
Q5				1	
Q7				1	
Q8				4	
Q9		0.5		2.5	
Q10		0.25		1.5	
Q11		0.25		0.5	
Q12		0.25		3	
Q13				3	
Q14				6	
Q15				2.5	
Q19				5	
O1				1	
O2		1			



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## West Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
O5				2.5	
O6				1	
O11				2	
O14				1	
O17				2	
O20				1	
O21				1	
N1				2.5	
N3				3	
N5				2	
N6				1.5	
N7				4	
N8				2.5	
N9				3	
N12				2.5	
N13				1	
N14				3	
N15				1	
N16				3	
N17				2	
N18				3	
N19				3	
L3				1	
L4				1	
L7				2.5	
L8				1	
L9		0.25		1.5	
K1				2.5	





EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## West Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
K2				3	
K3				2.5	
K4				5	
K5				2.5	
I5				1	
I6				2	
I9				2	
H1				4	
H3		0.5		4.5	
H4		0.75		4	
H5		0.5			
H6				2.5	
F2		0.75			
F4				1	
F5				1.5	
F6				4	
F7				1	
F8				2.5	
F9				1	
E1				1.5	
E2				1.5	
E3		0.25		2.5	
E4		0.5		2	
E5				7	
E6				1	
C3				2	
C5				1	
C6		0.25			



EXTERIOR STONE RESTORATION  
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## West Elevation Ashlar Masonry Survey Take Off

Unit #	Pinning Delamination (SF)	Mortar Repair (SF)	Dutchman (SF)	Small Crack Repair/Grout (LF)	Large Crack Repair/Scissor Pin (LF)
C7				2	
C8				0.5	
B6		1			
B8			6		
WT1			9		
WT2			40		
Win-1		0.5			
Win-2		1			
Win-3		1.5			
Win-4		1			
Door-1			4		7
Door-2	1	1.5	4	6	
Win-5	8	3	12		
Win-6	8	4	14		
Cor-1	1			1	
Cor-2	1			1	
Cor-3	1			1	
Cor-4	1			1	
Cor-5			2		
Cor-6			2		
Cor-7	1			1	
Cor-8			1		
Cor-9			2		
Cor-10			2		
<b>TOTALS</b>	23	21	89	232.5	7



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA

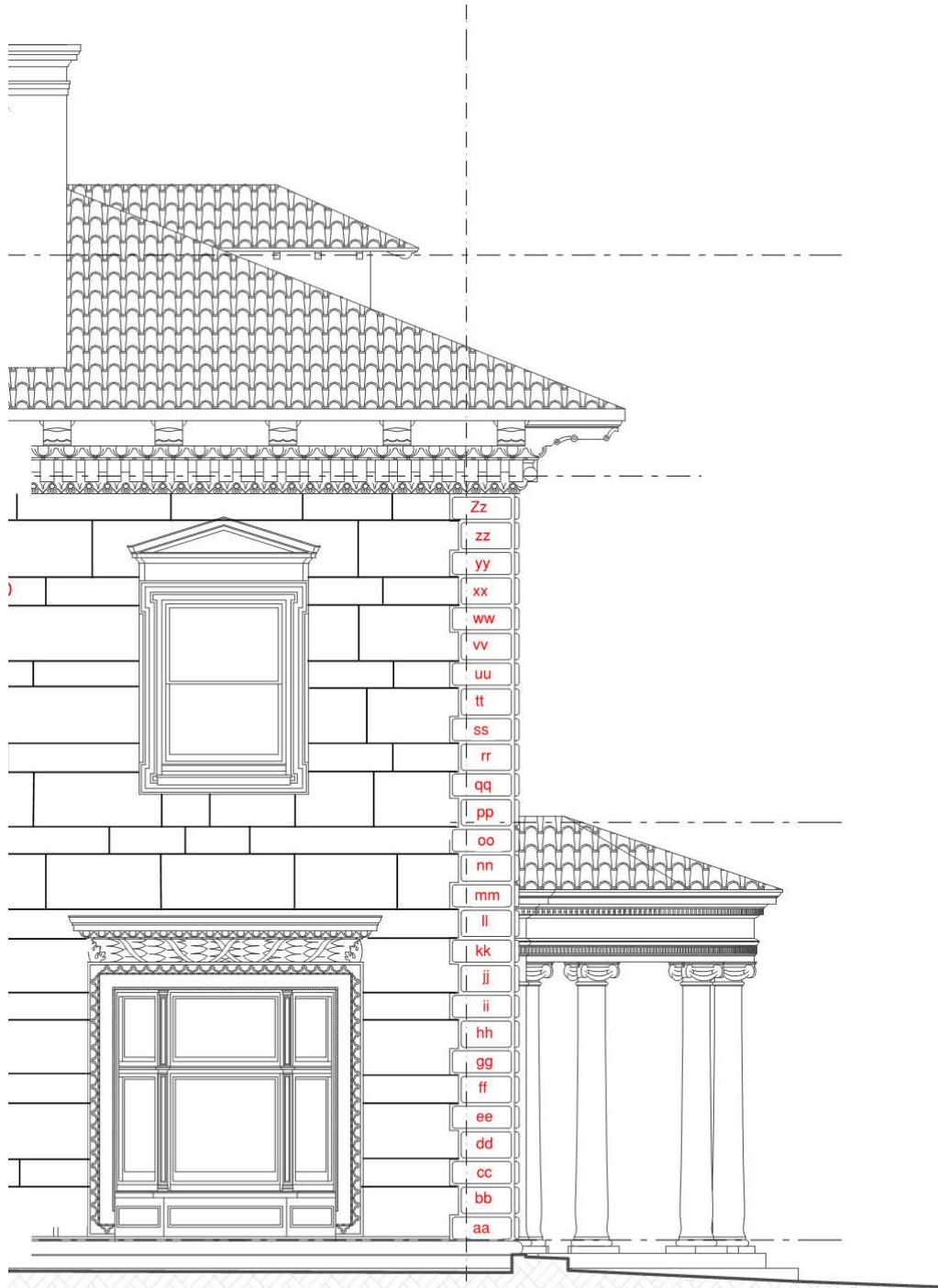


### West Elevation Quoin

Quoin Unit	Pinning/Delamination (SF)	Mortar Repair (SF)	Dutchman Repair (SF)	Crack Repair (LF)
ZZ				
Z				1.5
Y				
X				1.5
W				
V				
U				
T				
S		0.5		
R				
Q				
P				
O				1
N				
M				1.5
L				
K		0.25		
J		0.25		
I				
H				
G				
F				
E				
D				
C				
B				
A		0.5		
<b>TOTALS</b>	<b>0</b>	<b>1.5</b>	<b>0</b>	<b>5.5</b>

### West Elevation Quoins

Quoin Unit	Pinning/Delamination (SF)	Dutchman (SF)
Zz	2.5	
zz	2	
yy	1	
xx	1	
ww		0.5
vv		2
uu		2.5
tt		1
ss		0.5
rr	1	
qq	1	1
pp		2
oo	1	1
nn		2
mm		2.5
ll		2
kk		2.5
jj		2
ii		1.25
hh		2
gg		1.75
ff		1.75
ee	1	2
dd		2
cc		2.5
bb		2
aa		2.5
	<b>10.5</b>	<b>39.25</b>



West Elevation Quoins

FIGURE 10



EXTERIOR STONE RESTORATION  
2622 JACKSON STREET, SAN FRANCISCO, CA



## West Elevation Cornice

Cornice Unit	Pinning/Delamination (SF)	Mortar Repair (SF)	Dutchman Repair (SF)	Crack Repair (LF)
Cor-1	1			1
Cor-2	1			1
Cor-3	1			1
Cor-4	1			1
Cor-5			2	
Cor-6			2	
Cor-7	1			1
Cor-8			1	
Cor-9			2	
Cor-10			2	
<b>TOTALS</b>	<b>5</b>	<b>0</b>	<b>9</b>	<b>5</b>





## SPECIFICATIONS

DATA SHEET 1 THERMATECH SUPERHEATED WATER SYSTEM.....	86
DATA SHEET 2 SAINT ASTIER NATURAL HYDRAULIC LIME 3.5.....	88
DATA SHEET 3 MERLEX MINERAL OXIDE PIGMENT.....	89
DATA SHEET 4 V-WRAP CARBON FRP ROD.....	91
DATA SHEET 5 SITE PRO STAINLESS STEEL THREADED RODS.....	93
DATA SHEET 6 GIBBS STAINLESS STEEL WIRE.....	94
DATA SHEETS 7-11 WINDOW DETAILS.....	95-99
DATA SHEET 12 BEREA SANDSTONE.....	100-102

## DATA SHEET 1

### Technical Information Sheet

## RESTORATIVE TECHNIQUES



### THE THERMATeCH® 'SUPERHEATED WATER' SYSTEM

#### Explanation

Unlike a conventional hot water pressure washer, the ThermaTech system combines continuous **high temperature** and **pressure** and **lower water volume**. This is delivered as a **liquid spray**, even at temperatures close to 155°C. This is referred to as '**Superheated Water**'. It achieves this by using less water, high heat capacity and specific nozzle design and specification.

#### Description

The 'standard' ThermaTech system comprises pump, 'heater module', high pressure hoses and 'gun'. The system is modular, the pump and fuel tank can be lifted away to aid vehicle loading and site mobility. Selection of lances and nozzles and the adjustment of temperature and pressure are made to suit the substrate and soiling or coating. A gauge on the pump and digital display on the Module, register the working pressure and temperature.

Cold water from a tap or water tank is pressurised by the pump and passes through a blue high pressure hose to the Heater Module. Heated by diesel or kerosene, hot water exits through flexible red high pressure hoses to the gun.

For vertical surfaces, a short lance can be used more accurately for surface detail or paint and coating removal.

For increased performance, it is possible to connect the pump to two Heater Modules and back to one gun. This provides full temperature at the full pressure rating.



All ThermaTech systems have been built with Digital Temperature Control. The critical feature of this is not that it provides a digital instantaneous display of the temperature, but that the temperature fluctuation is kept to a minimum. Conventional hot machines (including many other superheated/steam types) use capillary thermostats, which result in a wide temperature range at lower operating pressures and thus equally wide changes in the spray shape and intensity through the heating cycle (the thermostat regulates the temperature by switching the boiler in and out). The controls built into the ThermaTech maintain much tighter temperature control and therefore spray shape over the cycle. The standard 110v system and trigger arrangement has a water flow rate of 4-8.5 litres min<sup>-1</sup>. Standard option pressure is adjustable from 30-140bar\*.

However alternative, additional options allow for, ThermaTech systems being used on delicate substrates that can routinely be operated in conjunction with pressure reducing guns. This enables a maximum pressure to be set at the pump but then the same or a reduced pressure to be set on demand at the gun. Whilst the minimum pressure at the pump is normally 30bar, setting at the gun can be as little as 0bar. At low pressures (≤50bar), a ThermaTech can also be set up and used to supply 2 operators simultaneously at full temperature, whilst allowing each operator to select a different pressure if required.

#### Specification

The **standard electric pump** is 110v and has a water flow rate of 4-8.5 litres min<sup>-1</sup>. Pressure is adjustable from 30-140bar\*. The optional 230v pump has a maximum pressure of 160bar\*.

The **standard heater module** is 110v but is made 'dual voltage' by use of the optional 'drop in' transformer. The fuel is red or white diesel, or central heating oil (kerosene). Kerosene should be used with a combustion additive to prevent 'sooting up'. With adjustment, cooking oil is also permitted.

Temperature is adjustable from 30-155°C. With one Heater Module, 155°C can be maintained at pressures up to 90bar\*, 120°C up to 120bar\* and 100°C up to 155bar\*.

**High pressure hoses** are twin wired and supplied red, in 10m or 20m length. For lengths longer than 30m, it is recommended that the additional hosing be located between pump and Heater Module to minimize temperature loss.

\*One 'bar' is a unit of pressure equivalent to 14.5 pounds per square inch (P.S.I.).

## Cleaning

The intensity of cleaning for delicate substrates is reduced by (a) Reducing the pump pressure setting (b) Changing the nozzle specification e.g. a nozzle of wider spray angle exerts a lower surface pressure at a given distance (c) Increasing the temperature so that the spray becomes diffuse (d) Increasing the working distance of nozzle to surface.

For delicate surfaces, full temperature but reduced pressure is used (see the explanation under 'paint/coating removal' below). The minimum practical pump pressure is 30bar\*.

The temperature at which the spray becomes diffuse varies one nozzle design to another and so one with a lower diffusion temperature but operated at a higher temperature, will provide a 'softer' (diffuse) clean (see nozzle selection).

For tenacious soiling, it will be found advantageous to develop 'the clean' in stages, leaving an interval between. This 'dwell' period often acts to soften or release deposits more readily e.g. for removal of light sulphation, or deep organic soiling from wall copings.

Prolonged or close contact is unable to raise the temperature higher than the setting which, at a maximum of 155°C, is regarded as well below that which will induce chemical or physical change in most mineral substrates. However, direct contact with glass must be avoided. The use of hot water greatly accelerates drying. Precautions must prevent wet substrates being subjected to frost.

## Paint/Coating Removal

The closer a nozzle operates to the surface, the higher the temperature but also the higher the surface pressure (because the water exits the aperture in a 'fan' shape). In general, it is high pressure (and/or volume) that will potentially damage a substrate and not the temperature. Therefore, if a given temperature/pressure setting proves to be too aggressive, one should lower the pump pressure and use the nozzle closer to the surface. The pressure effect that would be induced by moving the nozzle closer is counteracted by reducing the pump pressure. The reduced distance will, however, raise the temperature at which the water strikes the surface thus aiding the yield of the coating.

If the coating proves too resistant, or the substrate is too weak, a chemical to soften the coating should be employed. This will allow the nozzle to be operated at a greater distance (lower surface pressure) and to reduce the action time.

## Nozzle Selection

Choice of nozzle is important. For the ThermaTech system, we presently have a number of nozzle types.

*The standard nozzle (Lechler type) loses sharpness at temperatures greater than 140°C. This produces an even spray with good cleaning and paint removal characteristics. The spray angle used for cleaning is normally 40° but a nozzle of 25° can be used where the substrate allows.*

An alternative nozzle ('Spraying Systems' type) causes the spray to become diffused once the water temperature significantly exceeds 100°C. This is used selectively to generate a very soft and hot vapour for the most delicate cleaning. This is not normally necessary for sound surfaces and is generally inappropriate for paint removal.

## Health and Safety and Documentation

The ThermaTech system has been designed and built in the U.K specifically for use with restoration and conservation projects and for all kinds of site work generally.

The design utilises 110v as standard. The Heater Module is fitted with twin safety relief valves, twin temperature controllers, direct temperature readout and the controls are 24v. It uses a jerry-can tank to reduce site fuel handling. Fuel tank 'bundling' and 'drip tray' options are available. The switches of both the pump and the Heater Module have current overload and low voltage cut-out protection.

Hot high pressure hoses have been manufactured in red, specifically for the ThermaTech, to denote high temperature. External plugs and connectors are of IP67 'watertight' construction.

In addition to this 'Technical Information Sheet', Restorative has produced a family of documents to support project specification and management. These are for general guidance and include the 'ThermaTech Risk Assessment' and 'ThermaTech Safe Working Procedure'. These have been written in conjunction with our independent health and safety advisors, the NFU, and are reviewed by them and re-issued on an annual basis. These are available for architects, specifiers and contractors for the use of equipment and products supplied by Restorative Techniques Ltd.

Where applicable, 'Health and Safety Data Sheets' are issued for products used in conjunction with this equipment such as that for 'ThermaTech Descaler Concentrate'.

Restorative can be engaged to produce on-site trials and reports and to aid decision making in specification and implementation.

04/07/2012.

*Neither Restorative Techniques Limited, nor the author, can accept liability for the relevance of this information and how it is used. Users and specifiers shall determine for themselves if the technique is applicable, and the parameters for use.*

## DATA SHEET 2

# NHL 3.5

## Main Data and Application Recommendations

**Product Specification:** Pure and Natural Hydraulic Lime (NHL). Contains no additives.

**Conforms to European Norms (EN 459)**

Strength Factor: 3.5 (moderately hydraulic)

Residue @ 0.09 mm: 6.5%

Whiteness Index: 72

Available (free) lime after slaking  $\text{Ca}(\text{OH})_2$  20-25%

**Packing:** 55 lbs (25 kg) bags

Density (volumetric weight) 40.6 lbs/ft<sup>3</sup> 650 gr/litre

Surface Cover: 274 sqft<sup>2</sup>/oz (cm<sup>2</sup> per gram: 9000)

Expansion: <3/64" (1mm)

Residue of quick lime after slaking: <1%

**Shelf Life:** 8-12 months kept sealed and dry

MORTARS Compressive Strength - PSI (N/mm <sup>2</sup> )					Elasticity Moduli 10 <sup>3</sup> psi (Mpa)		
Mixing Ratio	EN459	1 : 2	1 : 2.5	1 : 3	1 : 2	1 : 2.5	1 : 3
7 Days		109 (0.75)	83 (0.57)	77 (0.53)			
28 Days	740 (5.1)	273 (1.88)	213 (1.47)	194 (1.34)	1306 (9010)	1305 (9000)	1170 (8070)
6 Months		1029 (7.1)	774 (5.34)	571 (3.94)	2213 (15260)	1958 (13501)	1805 (12450)
12 Months		1087 (7.5)	855 (5.90)	565 (3.90)	2216 (15280)	1975 (13620)	1907 (13150)
24 Months		1251 (8.63)	870 (6.00)	576 (3.97)	2535 (17480)	1999 (13785)	1982 (13670)
Consumption for 1 yard <sup>3</sup> (1m <sup>3</sup> ) of mortar							
lbs +/-10% (kg +/- 10%)		514 (305)	411 (244)	364 (216)			

**Mixing:** Can be mixed in cement mixers.

**Application by Spray Gun:** possible

**Working Temperatures:** not below 40°F or above 85°F. Make sure that high suction materials are thoroughly dampened before application. Avoid rapid drying due to high temperatures or strong winds by curing with a light water mist several times a day if necessary. Protect from frost, rain, direct sun and strong wind for a minimum of 72 hours.

**SUITABLE FOR LATH WORK / LIME CONCRETE / INJECTION / GROUTING:** see relevant sheets

**Reworking:** possible within 12 hours

### MORTAR USES: MASONRY/POINTING/ CAPPING/ BEDDING/ ASHLAR

Binder: sand ratio: from 1:1.5 to 1:3 depending on the support/background conditions, the size of the joint and the fineness of the sand. Always use well graded sands (#6 (3 -4mm) down to #200 (75 microns)). See also "General Guidelines – Sand for NHL mortars"

### PLASTERING

- |                 |                        |  |
|-----------------|------------------------|--|
| A. Scratch Coat | 1/8"-3/16" (3-5 mm)    | 1 volume of NHL 3.5 : 1.5 volumes sand - Cast on |
| B. Brown Coat   | 5/8" - 3/4" (15-20 mm) | 1 volume of NHL 3.5 : 2 volumes sand*            |
| C. Finish Coat  | 3/16" - 3/8" (5-10 mm) | 1 volume of NHL 3.5 : 2.5 volumes sand           |

With very fine sands possibly containing clays, the binder content may have to be reduced.

\*At this ratio the consumption is approximately 2.05 lbs (0.35 kg) of NHL 3.5 per square yard (m<sup>2</sup> for each 1/8" (m) thickness

*Please also refer to General Guidelines: NHL Plasters*

The above details are given for information purposes only. Final dosages and application should be checked with our technicians. The Factory reserves the right to alter specifications.

## DATA SHEET 3

### Merlex Stucco

KEEPING IT PREMIUM SINCE 1963

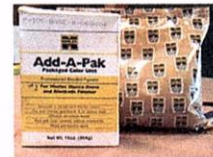


## Products

### Exterior Stucco

 [View the Add-A-Pak SDS PDF](#)

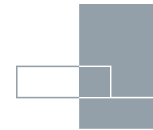
<b>Name</b>	Add-A-Pak
<b>Type</b>	Exterior Stucco Base and Packaged Color System
<b>Application</b>	Trowel or spray applied
<b>Method</b>	
<b>Product Overview</b>	The Merlex Add-A-Pak Base and Packaged Color Stucco system uses Color Units, pre-blended, pre-measured formulations of mineral oxide pigment which are individually packaged in 1 lb. (.454 kg) cartons or heat sealed poly bags, to be mixed at the job site with the appropriate Merlex Stucco base.
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• Eliminates waste.</li> <li>• Reduced inventory.</li> <li>• Faster availability of desired color.</li> <li>• 30 standard colors, custom colors available.</li> <li>• Bases include 16/20, 20/30, and Santa Barbara Finish.</li> <li>• Mixes easily.</li> </ul>
<b>Textures</b>	Merlex Add-A-Pak Stucco System can achieve all the textures available using Merlex Color Coat Stucco.
<b>Substrates</b>	Merlex Add-A-Pak Stucco System will create an excellent bond to any properly prepared portland cement based surface.
<b>Color Packs</b>	Add-A-Pak color units are readily available in 30 standard colors. Custom or non-chart colors are available upon request. Any Merlex color can be ordered as Add-A-Pak. The system provides the same high quality stucco finishes as preblended Color Coat, only the color is not integrally blended. Requires the addition of one Add-A-Pak color unit to each bag of base to achieve the proper color.
<b>Bases</b>	The System uses two standard bases to achieve most colors: A Base (white portland cement), and B Base (grey portland cement). Other combination bases (C, D, & E) are available upon request to achieve unusual colors. Note: Base designation will be determined by the color that is selected and should always be properly coordinated.
<b>Samples</b>	3" x 3" sand finish samples are immediately available in all 30 standard colors. Other colors, textures, and sample sizes may be ordered by special request. Merlex takes pride in its quick response time in processing your sample orders.
<b>Coverage</b>	Coverage will vary depending on which type of stucco base is used and how it is applied. Follow the instructions on the appropriate Merlex Color Coat or Santa Barbara Finish Stucco product specification sheets.
<b>Surface Preparation</b>	New portland cement substrates should be properly cured prior to application of Merlex Exterior Stucco. All receiving surfaces must be structurally sound, clean, free of dust, dirt, silicones, paint products, efflorescence or any other containment which could impair the natural bond. For hand applications the substrate should be dampened with clean potable water to control suction. Major cracks, holes, or voids should be repaired prior to application.
<b>Mixing</b>	Mechanically mix one 90 lb. (40.8 kg) bag of the desired Merlex base material to a stiff consistency until all lumps dissipate. Add all of the Add-A-Pak color units that will be required (1 unit per each sack of base) for the total batch to be mixed. Add enough water to sufficiently loosen the mixture and then add remaining sacks of base. Continue to mix for at least 20 minutes to provide maximum workability. <b>Do not short mix.</b>
<b>Application</b>	Application technique will vary depending on which type of stucco base is used. Follow the instructions as outlined on the appropriate Merlex Color Coat or Santa Barbara Finish Stucco product specification sheet.
<b>Compatibility</b>	When the Add-A-Pak base and color system is selected it should be used for the entire project. Do not merge with premix stucco. There will







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always be a slight, but discernible, color difference.

<b>Clean Up</b>	Water and detergent. Clean spills and spatters before stucco dries.
<b>Packaging</b>	Add-A-Pak color units are packaged 30 units per case. Each unit is properly marked with the Merlex color number, base designation, and mixing instructions.
<b>Limitations</b>	Do not apply if ambient temperature will fall below 40° F (4° C) within 24 hours. During periods of hot/dry weather moist curing may be necessary. <b>Caution:</b> Variations such as thickness and composition of substrate, surface textures, inclement weather, mixing and application technique, or addition of field additives may impair color uniformity. To gain higher color uniformity, apply Merlex FogCoat bonding cement coating.
<b>Warranty</b>	Merlex Add-A-Pak Exterior Stucco is warranted to perform in accordance with the product specification when used according to application instructions on the label. This warranty is limited and shall not exceed the total amount paid by the buyer for the product. In no event will Merlex Stucco, Inc. be liable for loss of profits, special or consequential damages in respect to any claim. The foregoing warranties are in lieu of all other warranties express or implied including those concerning fitness for a particular use.
<b>Environmental &amp; Safety</b>	Contains portland cement and is alkaline on contact with water. May be irritating to eyes and skin. Wear appropriate skin and eye protection. In case of eye contact, flush immediately with water. If irritation persists, consult a physician. Wash hands with soap and water after use or before eating. <b>Keep out of reach of children.</b>
<b>Material</b>	Portland cement: Type 1-ASTM C150-56
<b>Standards</b>	Hydrated lime: Federal specs SS-L-351B Type F, ASTM C206-88



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## DATA SHEET 4

### Strengthening Solutions

## V-Wrap™ Carbon FRP Rod

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#### Typical Data for V-Wrap Carbon Fiber Rod

<b>Storage Conditions:</b>	Store dry at 50°F – 90°F (10°C – 32°C)
<b>Color:</b>	Black
<b>Primary Fiber Direction:</b>	0° (unidirectional)
<b>Shelf life:</b>	10 years
<b>Fiber Type:</b>	Carbon
<b>Matrix Type:</b>	Epoxy Vinyl Ester Resin
<b>Fiber Volume Fraction:</b>	70%
<b>Tensile Strength:</b>	300,000 psi (2,068 MPa)
<b>Modulus of Elasticity:</b>	19,000 ksi (131,000 MPa)
<b>Elongation at Break:</b>	1.58%



<b>Rod Sizes:</b>	<b>#3</b>	<b>#4</b>
<b>Rod Diameter:</b>	0.36" (9 mm)	0.47" (12 mm)
<b>Design Area:</b>	0.101 in² (65 mm²)	0.19 in² (122 mm²)

#### DESCRIPTION:

V-Wrap Carbon FRP Rod is a family of high strength, pre-manufactured composite carbon/resin rods. These rods are used as internal or external reinforcement providing additional strength and stiffness to concrete and masonry structural elements. As a strengthening system, V-Wrap Carbon FRP Rods are utilized for a technique known as "Near Surface Mounted" or NSM reinforcement. This strengthening system consists of the FRP rods embedded in grooves made on the surface of the member. The rods are bonded in the grooves, below the surface, using V-Wrap 770 Adhesive and/or V-Wrap PF – Putty Filler. Because it is embedded below the surface, V-Wrap Carbon FRP Rods are especially attractive for strengthening of surfaces that could be subject to abrasive or mechanical damage, such as parking decks, slabs and walkways. For masonry structures, the rods can be installed in the existing joints, thus upgrading the capacity without negative aesthetic impact.

#### PRODUCT USES:

##### NSM STRUCTURAL STRENGTHENING

- When member surface is exposed to vehicular, snow plow, or pedestrian traffic
- When use of externally bonded fabric and laminates is not feasible due to poor concrete surfaces that require extensive preparation
- When member surface is exposed to mechanical impact
- Where final aesthetics of FRP sheets is not acceptable
- For anchoring the end of FRP sheets

##### MASONRY STRENGTHENING

- Masonry wall strengthening for increasing in-plane or out-of-plane bending capacity
- For increasing wall in-plane or out-of-plane shear capacity

#### ADVANTAGES:

- Reinforcement protected from mechanical and environmental damage
- Effective topside strengthening system for slabs and beams
- FRP rods can be effectively anchored into adjacent members
- Used for shear or flexural strengthening
- Non-corrosive reinforcement system
- Light-weight
- High-strength
- Low impact on member appearance and aesthetically pleasing

#### PACKAGING:

V-Wrap Carbon FRP Rod is furnished in 20 ft (6 m) long pieces.

#### HOW TO USE DESIGN:

Design should comply with ACI 440 and is typically based on CFRP contribution determined by detailed analysis. The design should be based on force equilibrium and strain compatibility principles. The minimum dimension of the grooves should be taken at least 1.5 times the diameter of the FRP rod. Design parameters will vary based on project requirements and applicable environmental, groove surface condition, and strength reduction factors. Contact STRUCTURAL TECHNOLOGIES to determine applicable design requirements and reduction factors.



## Strengthening Solutions

# V-Wrap™ Carbon FRP Rod

**structural**  
TECHNOLOGIES

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### SURFACE GROOVE INSTALLATION AND PREPARATION:

- Integrity of the surface concrete should be checked prior to installing the rod. Corrosion of internal steel reinforcement should be adequately addressed prior to installing the strengthening system.
- Make grooves onto the surface of the slab. Minimum groove width and depth is 1.5 times the rod diameter.
- The inside faces of the groove should be roughened using sand blasting or pressure washing to ensure adequate bond properties. All grooves shall be cleaned to remove loose particles and dust.
- Groove surfaces must be clean and sound. It must be dry and free of frost. All dust, laitance, grease, curing compounds, waxes, deteriorated materials, and other bond-inhibiting materials must be removed from the surface prior to application using clean pressurized air.

### CUTTING V-WRAP FRP CARBON ROD:

- Rods can be cut to appropriate length using a reciprocal saw with a fine tooth blade, grinder or wall chaser tool.

### ADHESIVES AND COATINGS:

- Construction materials will vary based on project requirements and applicable environmental and surface condition. Contact STRUCTURAL TECHNOLOGIES to determine applicable adhesive resin and coatings for a specific use.

### LIMITATIONS:

- Design calculations must be made and certified by an independent licensed professional engineer.
- Concrete deterioration and steel corrosion must be resolved prior to application.
- Only apply V-Wrap Carbon FRP Rod when the ambient temperature is within the specified temperature range of the adhesive resin.

### STORAGE:

- Store out of direct sunlight in a dry place between 50°F – 90°F (10°C – 32°C).
- Store rods in original packaging until ready to use. Keep dry and free from dust and oil.

*STRUCTURAL TECHNOLOGIES, LLC warrants its products to be free from manufacturing defects and to meet STRUCTURAL TECHNOLOGIES' current published properties when applied in accordance with STRUCTURAL TECHNOLOGIES' directions and tested in accordance with ASTM and STRUCTURAL TECHNOLOGIES Standards. User determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product and excludes labor or the cost of labor. Any claim for breach of this warranty must be brought within one year of the date of purchase.*

*No other warranties expressed or implied including any warranty of merchantability or fitness for a particular purpose shall apply. STRUCTURAL TECHNOLOGIES shall not be liable for any consequential or special damages of any kind, resulting from any claim or breach of warranty, breach of contract, negligence or any legal theory. STRUCTURAL TECHNOLOGIES assumes no liability for use of this product in a manner to infringe on another's patent.*

## DATA SHEET 5



# Stainless Steel Threaded Rods

A **valmont** COMPANY



**Features:** Available in cut lengths, or 6' sections.

**Construction:** 18-8 stainless steel, Grade 316 / 304

**Design Criteria:** Conforms to the minimum requirements as stated in 18-8 Stainless Steel, Grade 316 / 304 (Yield  $F_y = 74$  ksi / Tensile  $F_u = 29$  ksi).

Part #	Diameter	Length	Weight
SS38R-3.5	3/8"	3-1/2"	0.10 lb.
SS38R-5	3/8"	5"	0.10 lb.
SS38R-6.5	3/8"	6-1/2"	0.15 lb.
SS38R-8	3/8"	8"	0.20 lb.
SS38R-9.5	3/8"	9-1/2"	0.25 lb.
SS38R-12	3/8"	12"	0.30 lb.
SS38R-18	3/8"	18"	0.30 lb.
SS38R-30	3/8"	30"	0.45 lb.
SS38R-36	3/8"	36"	0.75 lb.
SS38R-72	3/8"	72"	1.70 lb.
SS12R-72	1/2"	72"	3.15 lb.
SS58R-72	5/8"	72"	5.05 lb.

## DATA SHEET 6



# Technical Data Sheet

### TYPE 302 STAINLESS STEEL WIRE

Type 302 stainless steel wire is a general purpose stainless alloy typically composed of 18% Chromium and 8% nickel. The balance of the chemistry is: carbon 15% maximum, manganese 2.00% maximum, and silicon 1.00% maximum. It is the most widely used stainless spring wire because of its high corrosion resistance properties and good tensile strength. For spring applications it is generally furnished in the cold drawn condition. Type 302 springs have good strength at moderate temperatures. If properly treated after forming they will set less than most other spring materials at temperatures up to 500°F. Type 302 is non-magnetic in the annealed condition, however material in the spring condition is slightly magnetic due to the transformation of some martensite in the drawing operation. The greater the amount of cold reduction the higher the degree of magnetism.

Gibbs Type 302 stainless steel wire is available in the size range .006" to .625". All wire conforms to ASTM-A-313 and AMS-5688.

Chemical Composition per ASTM-A-313								
Carbon	.12% max	Sulfur	.030% max	Molybdenum	0.75% max			
Manganese	2.00% max	Chromium	17.00 - 19.00 %	Copper	0.75% max			
Phosphorus	.045% max	Nickel	8.00 - 10.00 %					
Silicon	1.00% max	Nitrogen	.10% max					
Tensile Strength Table ( ASTM-A-313) *KSI								
Over	To	Tensile *	Over	To	Tensile*	Over	To	Tensile*
.001	.008	325-355	.031	.034	282-310	.125	.136	217-248
.009	.010	320-350	.034	.037	280-308	.136	.148	210-241
.010	.011	318-348	.037	.041	275-304	.148	.162	205-235
.011	.012	316-346	.041	.045	272-300	.162	.177	198-228
.012	.013	314-344	.045	.050	267-295	.177	.192	194-225
.013	.014	312-342	.050	.054	265-293	.192	.207	188-220
.014	.015	310-340	.054	.058	261-289	.207	.225	182-214
.015	.016	308-338	.058	.063	258-285	.225	.250	175-205
.016	.017	306-336	.063	.070	252-281	.250	.278	168-198
.017	.018	304-334	.070	.075	250-278	.278	.306	161-192
.018	.020	300-330	.075	.080	246-275	.306	.331	155-186
.020	.022	296-328	.080	.087	242-271	.331	.362	150-180
.022	.024	292-322	.087	.095	238-268	.362	.394	145-175
.024	.026	291-320	.095	.105	232-262	.394	.438	140-170
.026	.028	289-318	.105	.115	227-257	.438	.500	135-165
.028	.031	285-315	.115	.125	222-253	.500	.625	130-160

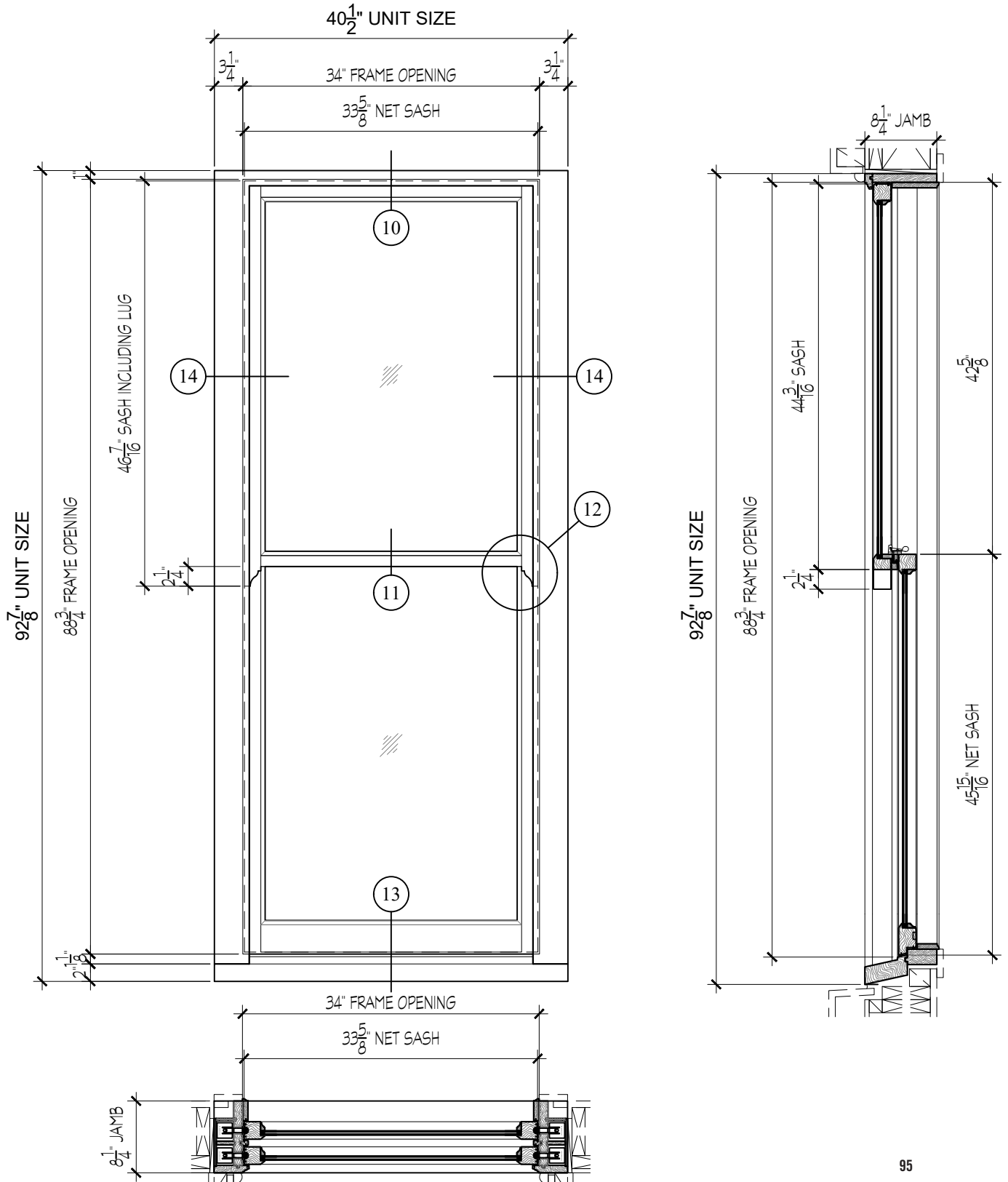
The above charts are intended to provide general background information. You should also review the appropriate material specification. Please contact Gibbs if you have any questions.

Gibbs Wire & Steel Company Inc.  
Metals Drive, Southington, CT 06489 (860) 621-0121

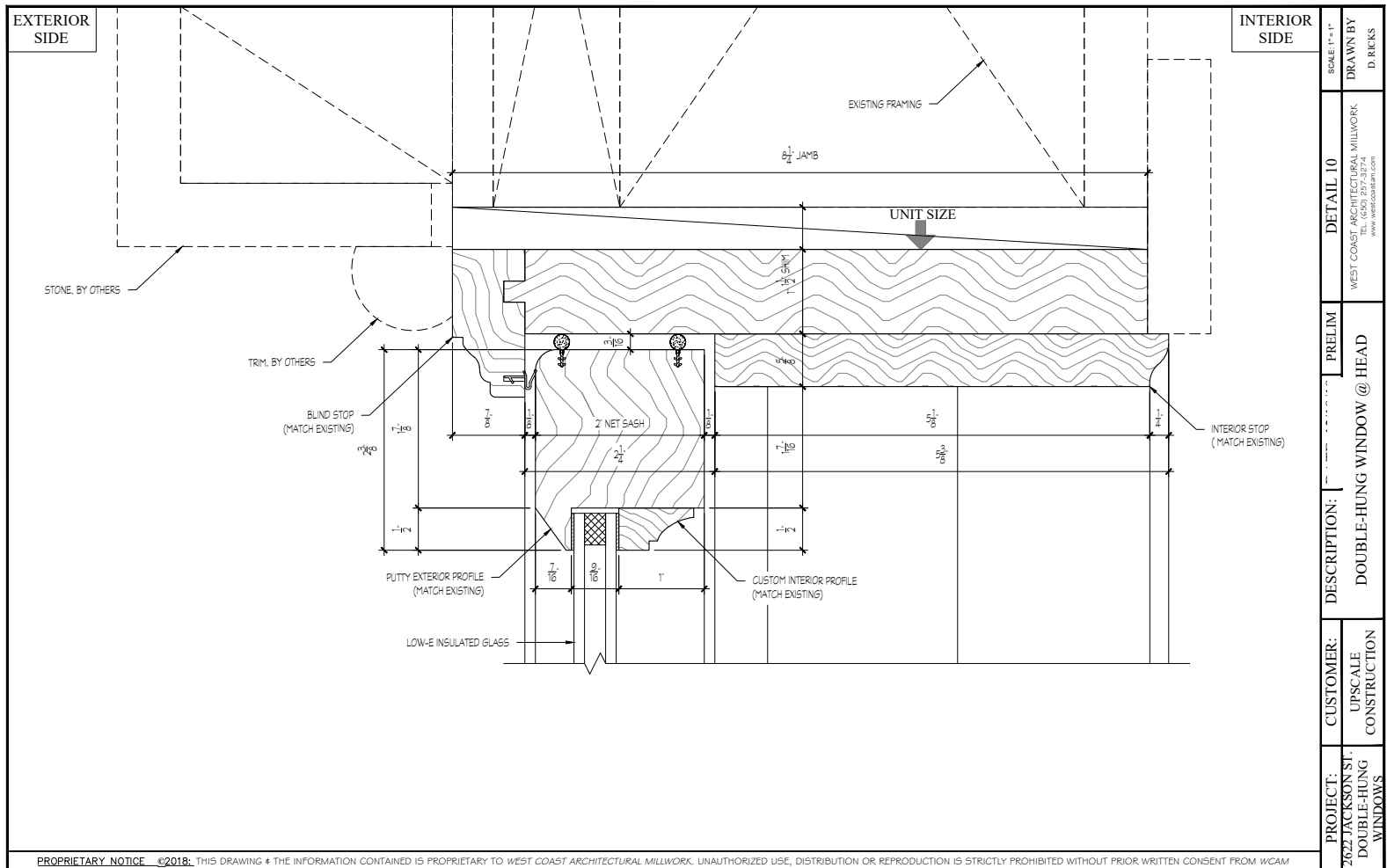
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DATA SHEET 7

# EXTERIOR



## DATA SHEET 8

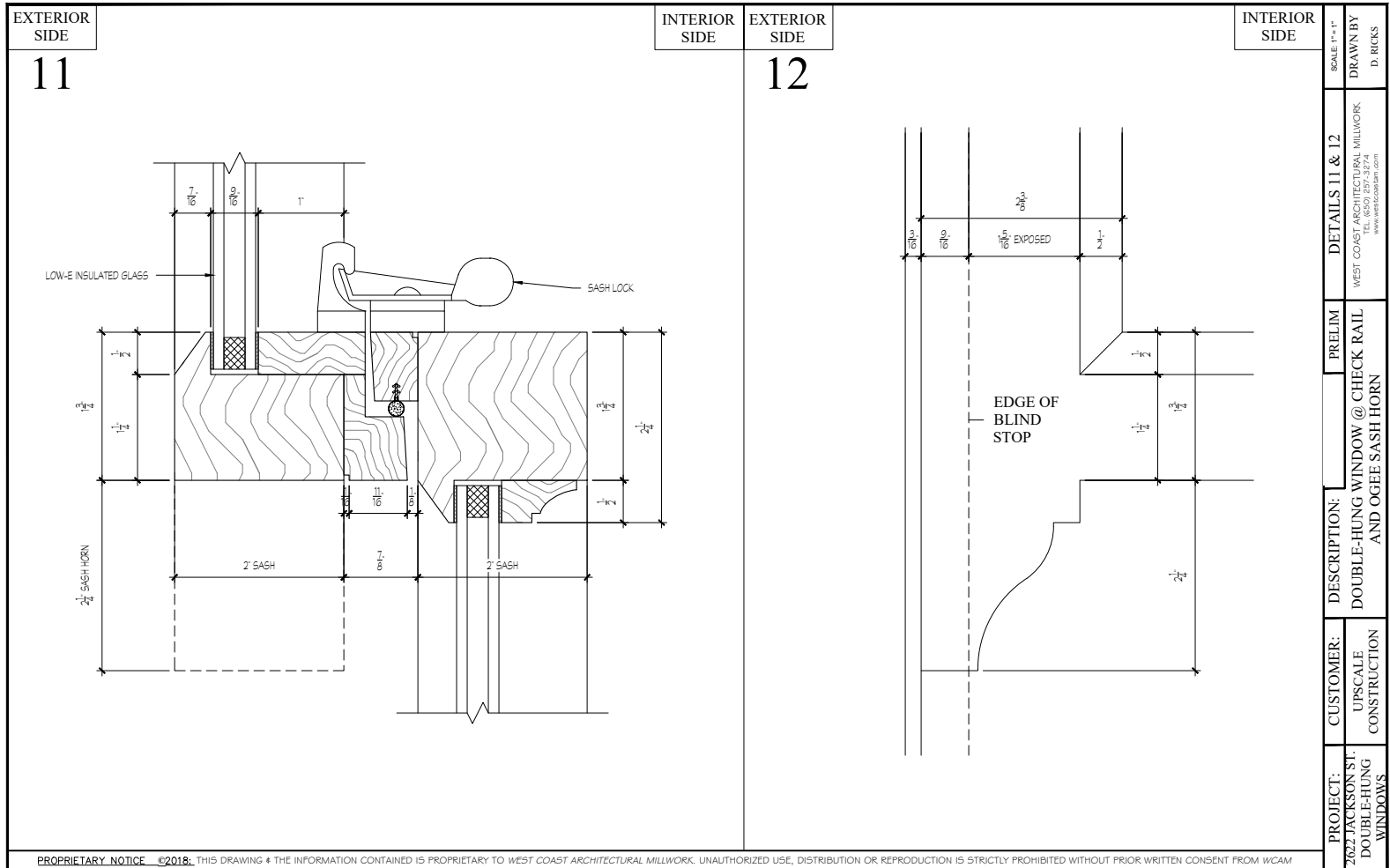


### DETAIL 10

WEST COAST ARCHITECTURAL MILLWORK  
TEL. (650) 257-3274  
www.westcoastam.com

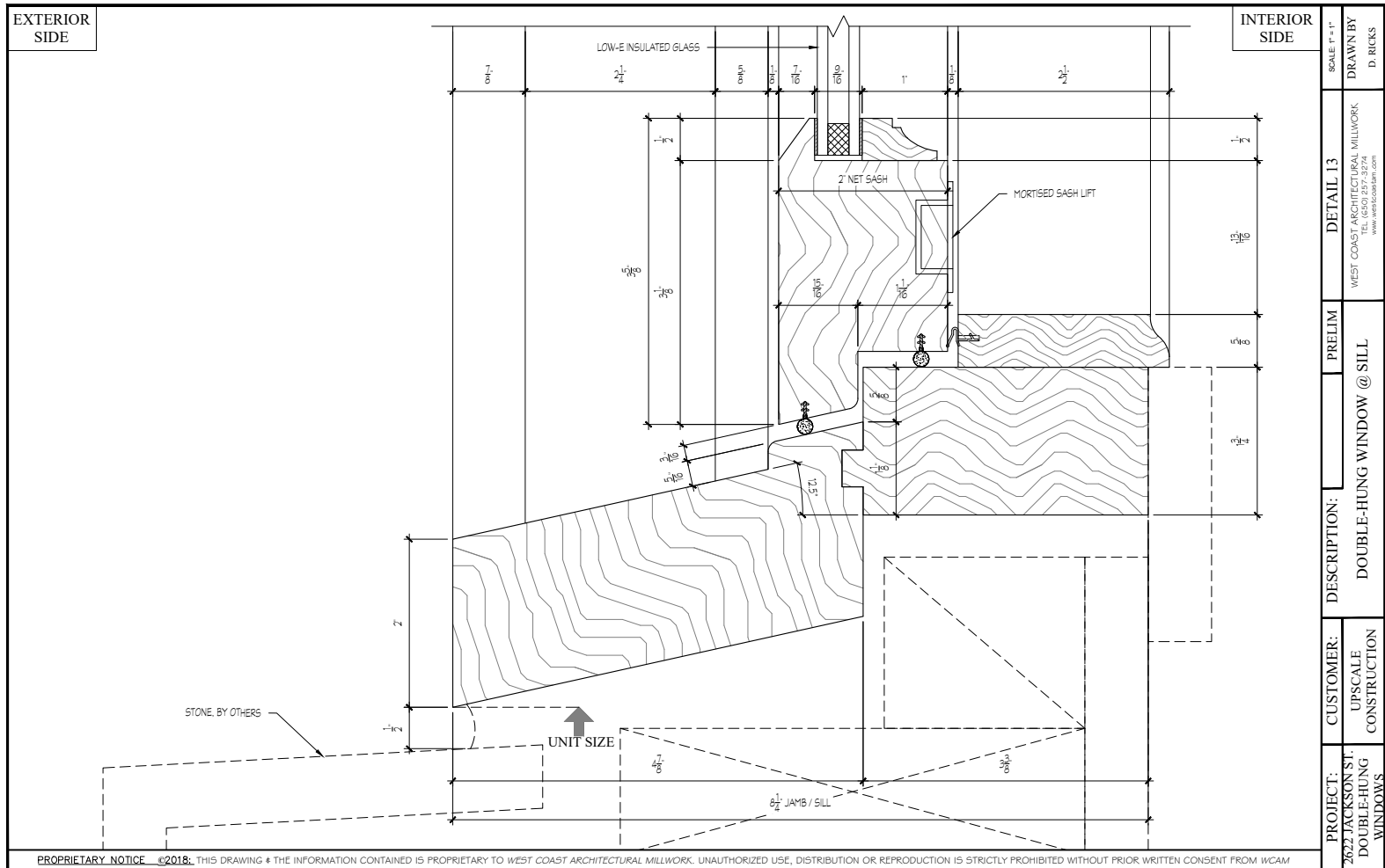


## DATA SHEET 9



<p><b>DETAILS 11 &amp; 12</b></p> <p>WEST COAST ARCHITECTURAL MILLWORK TEL. (650) 257-3274 www.westcoastam.com</p>
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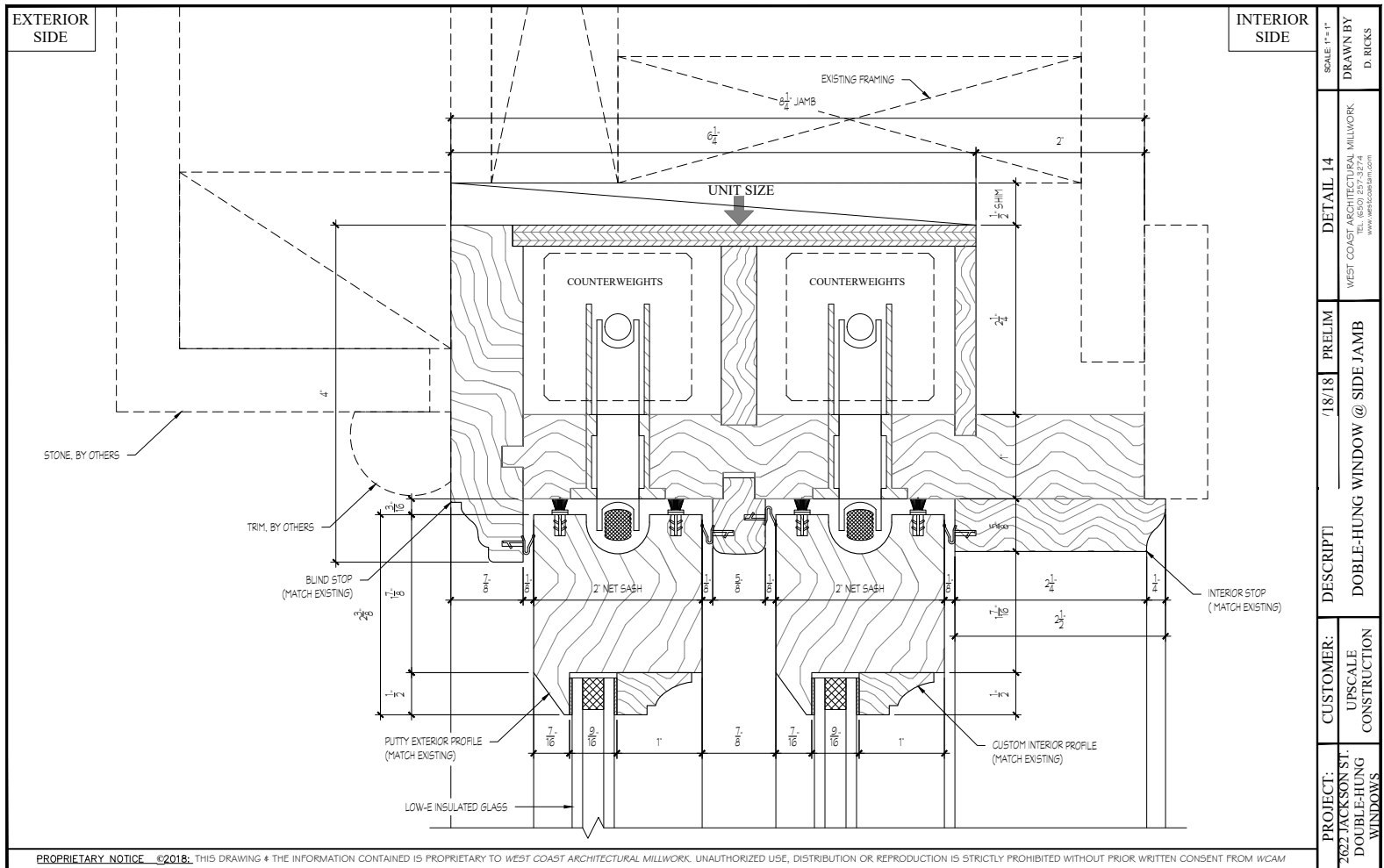
## DATA SHEET 10



### DETAIL 13

WEST COAST ARCHITECTURAL MILLWORK  
TEL. (650) 257-3274  
www.westcoastam.com

## DATA SHEET 11



### DETAIL 14

WEST COAST ARCHITECTURAL MILLWORK  
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## DATA SHEET 12



# Physical Properties of Berea Sandstone

The following table of physical properties of Amherst Gray and Birmingham Buff Sandstone are based on test results using ASTM procedures. Tests were performed by Geoco Geotechnical Consultants.

Birmingham Buff Sandstone						
ASTM C170 Compressive Strength PSI		ASTM C-99 Modules of Rupture		ASTMC-97 Absorption and Bulk Specific Gravity		ASTM C-241 Abrasion Resistance of Stone Subjected to Foot Traffic
Average		Average		Absorption Bulk Specific Gravity		Abrasive Hardness Value (1.1a)
(PSI)	(MPa)	(PSI)	(MPa)	(%)	(kg/m <sup>3</sup> )	10.89
11576	79.8	1177	8.1	5.85	2153	

Amherst Gray Sandstone						
ASTM C170 Compressive Strength PSI		ASTM C-99 Modules of Rupture		ASTMC-97 Absorption and Bulk Specific Gravity		ASTM C-241 Abrasion Resistance of Stone Subjected to Foot Traffic
Average		Average		Absorption Bulk Specific Gravity		Abrasive Hardness Value (1.1a)
(PSI)	(MPa)	(PSI)	(MPa)	(%)	(kg/m <sup>3</sup> )	9.48
11169	70.1	772	5.28	6.2	2119	

### Berea Sandstone Facts

Silica (SiO<sub>2</sub>): 93.13%  
 Alumina (Al<sub>2</sub>O<sub>3</sub>): 3.86%  
 Ferric Oxide (Fe<sub>2</sub>O<sub>3</sub>): 0.11%  
 Ferrous Oxide (FeO): 0.54%  
 Magnesium Oxide (MgO): 0.25%  
 Calcium Oxide (CaO): 0.10%  
 Alkali: Alk  
 Loss on Ignition: 1.43%

Berea Sandstone is an excellent building stone due to the composition of grains of Quartz bonded by Silica. The extreme hardness of the Quartz grains of Berea Sandstone enables it to preserve an abrasive non-slip surface. In addition to hardness, the quartz grains of Berea Sandstone possess a chemical resistance to the erosive action of the acidic chemicals in the atmosphere of today's cities. The silica bond does not deteriorate with time, exposure to water or temperature change and so prolongs to longevity of the stone.



## Specifications

### Cut Stone

**Quality:** All stone indicated on the drawings shall be fine-grained Berea Sandstone, quarried from the Northern Ohio deposits of Cleveland Quarries, and geologically referred to as the "Berea Formation." Sandstone shall be of homogenous composition throughout, with a moderate range of shadings and veinings, and shall come from quarries which have been in continuous operation for a period of 75 years or more.

**Cut Stone Finishes:** Exposed surfaces of sandstone shall be finished with a Sand-Sawed, a smooth planed, diamond sawed finish as desired by architects.

**Samples:** Prior to award of general contract, samples indicating range of color and veinings shall be submitted for approval of the architects.

### Ashlar Veneering

**Split Face Veneering:** Sandstone fabricated by Cleveland Quarries shall be furnished in random length unjointed strips, smooth sawed on top and bottom beds, split on back and front faces, in approximately 3-1/2" to 4" bed thicknesses. Standard Course Height Ratio is: 15% - 2-1/4", 45% - 5", and 40% - 7-3/4". For large scale projects a 10-1/2" course height may be included. Other course heights and face finishes are also available. Please Note: Course height ratios may be varied by architects.

**Coverage:** Wall coverage obtainable with the height ratio given for Split Face Ashlar, using a 1/2" mortar joint, should be approximately 40-45 square feet per ton.

**Pallets:** All Ashlar Veneering is sold by weight and is furnished on wooden pallets, each of which contains approximately one ton quantities of specific colors and course heights. Prices are based on heights, colors and finish.

### Rock Face Sills

Sawn beds and full rock face. Widths up to 12 inches, lengths up to 8 feet and up to 3 inches height. Drip groove is also available.

### Patio Stones

Square sawn 2" thick from 12"x12" up to 24"x36". Square sawn 2" thick from 12"x12" up to 24"x36".

### Slab

Buff and gray colors average size 72" x 60", available from 2" to 18" thick.

### Cleaning

Stone work shall be cleaned down after completion of setting, using clear water and bristle brushes. Under no circumstances should acids or detergent be used. Stone shall be sponged free of mortar as the work progresses.



## About Cleveland Quarries

Since 1868, Cleveland Quarries has followed the time honored tradition of quarrying and fabricating sandstone from the Amherst and Birmingham, Ohio area. Spanning an area of 1000 acres and containing over 300 million cubic feet of deposits, these quarries are both the oldest and largest in existence. Vast and awe inspiring, the area was formed billions of years ago during the Lower Carboniferous Period, and Evolutionary Era when continents were shaped and rock materials such as Silica, Magnesia and Lime were carried and deposited by the action of waves. Pure deposits of these substances formed in sheets as layer upon layer was cemented and hardened by pressure and chemical agents. In some areas these deposits were uniform and as man discovered these regions their potential was realized and quarries and mines were created. In the Amherst, Ohio area one such formation, the 'Berea,' spans an irregular belt which has become the "Sandstone Center of the World." Throughout a century, this natural wonder has produced a total of 500 million cubic feet of quality sandstone.

New uses are constantly being developed for sandstone because of its durability and strength. These include the renovation and restoration of existing structures, the building of prestigious residential projects and the production of standard landscape items such as patio stones, wall stones and split face ashlar.

From raw block to masonry unit, Cleveland Quarries has two on-site plants which process Berea Sandstone using some of the most current sawing and splitting techniques available. With the abundant shop resources, sandstone blocks of up to 16 tons are transformed into workable slabs. Split face material for retaining walls, caps, steps and ashlar is split to size by a series of huge, quick recovery Hydrasplitters™. Berea Sandstone is squared, shaped, finished and carved to detailed specifications by skilled craftsmen and diamond technology.





HAIRLINE CRACK REPAIR MORTAR COLOR MATCHING  
2622 JACKSON STREET, SAN FRANCISCO, CA



May 22, 2018





**Image 1.** Overview of west elevation illustrating stone color diversity prior to cleaning.



**Image 2.** Moistened crack prior to repair.



**Image 3.** Hairline crack after repair.





**Image 4.** Detail of hairline crack at decorative element prior to repair.



**Image 5.** Detail of hairline crack at decorative element after repair using color code TM-273C.



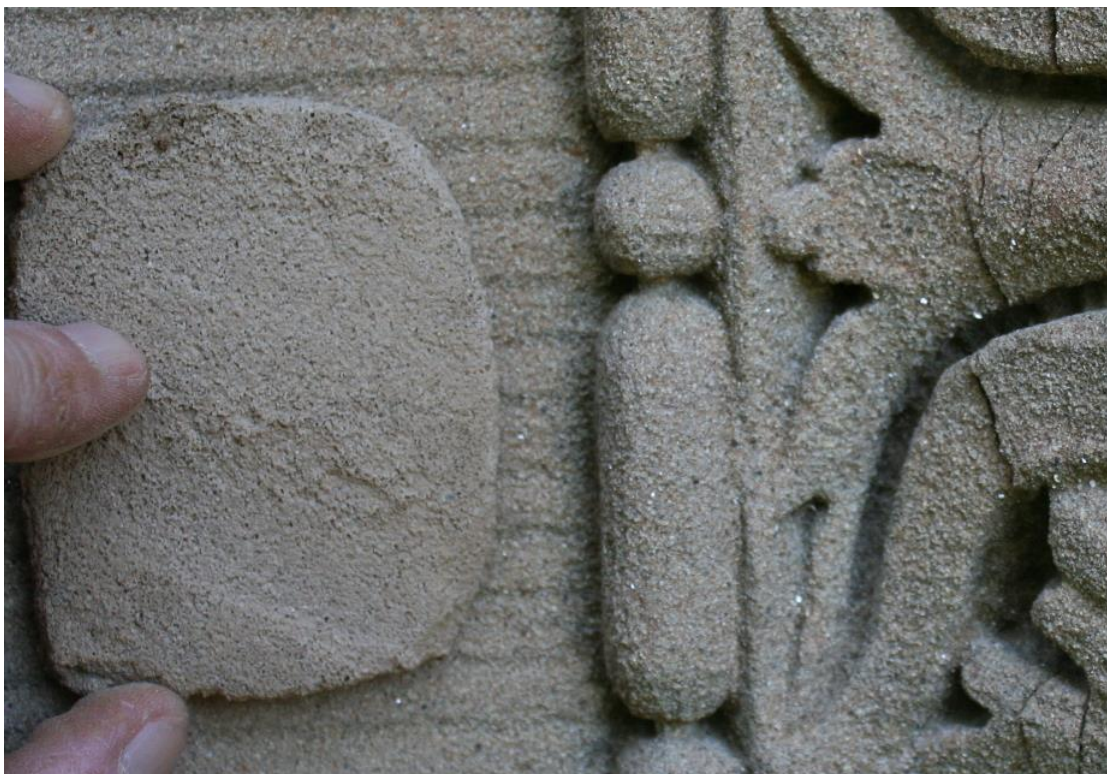


**Image 6.** Color match at ashlar masonry with mortar sample TM-265A in sunlight.



**Image 7.** Color match at ashlar masonry with mortar sample TM-265A in shade.





**Image 8.** Color match at decorative element with mortar sample TM-273C in shade.



**Image 9.** Color match at decorative element with mortar sample TM-273C in sunlight.





**Image 10.** Color match at heavily patinated stone with mortar sample TM-265C in sunlight.



**Image 11.** Color match at heavily patinated stone with mortar sample TM-265C in shade.





Image 12. Mortar color match of heavily weathered column at portico.



Image 13. Overview of Trans-mineral color-coded samples and small fragments of original stone.

# Saint Austier Natural Hydraulic Lime

## Data Sheets

# NHL 3.5

## Main Data and Application Recommendations

**Product Specification:** Pure and Natural Hydraulic Lime (NHL). Contains no additives.

**Conforms to European Norms (EN 459)**

Strength Factor: 3.5 (moderately hydraulic)

Residue @ 0.09 mm: 6.5%

Whiteness Index: 72

Available (free) lime after slaking  $\text{Ca(OH)}_2$  20-25%

**Packing:** 55 lbs (25 kg) bags

Density (volumetric weight) 40.6 lbs/ft<sup>3</sup> 650 gr/litre

Surface Cover: 274 sqft<sup>2</sup>/oz (cm<sup>2</sup> per gram: 9000)

Expansion: <3/64" (1mm)

Residue of quick lime after slaking: <1%

**Shelf Life:** 8-12 months kept sealed and dry

MORTARS Compressive Strength - PSI (N/mm <sup>2</sup> )					Elasticity Moduli 10 <sup>3</sup> psi (Mpa)		
Mixing Ratio	EN459	1 : 2	1 : 2.5	1 : 3	1 : 2	1 : 2.5	1 : 3
7 Days		109 (0.75)	83 (0.57)	77 (0.53)			
28 Days	740 (5.1)	273 (1.88)	213 (1.47)	194 (1.34)	1306 (9010)	1305 (9000)	1170 (8070)
6 Months		1029 (7.1)	774 (5.34)	571 (3.94)	2213 (15260)	1958 (13501)	1805 (12450)
12 Months		1087 (7.5)	855 (5.90)	565 (3.90)	2216 (15280)	1975 (13620)	1907 (13150)
24 Months		1251 (8.63)	870 (6.00)	576 (3.97)	2535 (17480)	1999 (13785)	1982 (13670)
Consumption for 1 yard <sup>3</sup> (1m <sup>3</sup> ) of mortar							
lbs +/-10% (kg +/- 10%)		514 (305)	411 (244)	364 (216)			

**Mixing:** Can be mixed in cement mixers.

**Application by Spray Gun:** possible

**Working Temperatures:** not below 40°F or above 85°F. Make sure that high suction materials are thoroughly dampened before application. Avoid rapid drying due to high temperatures or strong winds by curing with a light water mist several times a day if necessary. Protect from frost, rain, direct sun and strong wind for a minimum of 72 hours.

**SUITABLE FOR LATH WORK / LIME CONCRETE / INJECTION / GROUTING:** see relevant sheets

**Reworking:** possible within 12 hours

### MORTAR USES: MASONRY/POINTING/ CAPPING/ BEDDING/ ASHLAR

Binder: sand ratio: from 1:1.5 to 1:3 depending on the support/background conditions, the size of the joint and the fineness of the sand. Always use well graded sands (#6 (3 -4mm) down to #200 (75 microns)). See also "General Guidelines – Sand for NHL mortars"

### PLASTERING

A. Scratch Coat 1/8"-3/16" (3-5 mm) 1 volume of NHL 3.5 : 1.5 volumes sand - Cast on

B. Brown Coat 5/8" - 3/4" (15-20 mm) 1 volume of NHL 3.5 : 2 volumes sand\*

C. Finish Coat 3/16" - 3/8" (5-10 mm) 1 volume of NHL 3.5 : 2.5 volumes sand

With very fine sands possibly containing clays, the binder content may have to be reduced.

\*At this ratio the consumption is approximately 2.05 lbs (0.35 kg) of NHL 3.5 per square yard (m<sup>2</sup> for each 1/8" (m) thickness

*Please also refer to General Guidelines: NHL Plasters*

The above details are given for information purposes only. Final dosages and application should be checked with our technicians. The Factory reserves the right to alter specifications.

# Ecomortar EF-3.5 - Ready-Mix

Premixed pure & natural hydraulic lime and sand mortars for building, pointing, repointing, plastering and finishing in a variety of colors

The absence of cement, ashes, gypsum and other pozzolanic additions together with its other qualities, make Ecomortar EF-3.5 highly suitable for repair and conservation work on traditional, vernacular and historic buildings. In new build the properties of Ecomortar EF-3.5 will allow dispersion of condensation and will accommodate small settlement movements.

## Ecofriendly Characteristics:

- High vapour exchange qualities
- Produced with lower energy than cementitious mixes
- Re-absorption of CO<sub>2</sub> in curing
- Will not deteriorate timber
- Possibility of recycling the materials used in building
- Elimination of painted finishes

## Mechanical Characteristics

<i>Ecomortar EF-3.5</i>		
Dry bulk density	lbs/ft <sup>3</sup> (kg/m <sup>3</sup> )	103 (1650)
Dry bulk density (Powder)	lbs/ft <sup>3</sup> (kg/m <sup>3</sup> )	83 (1329)
Dry bulk density (Paste)	lbs/ft <sup>3</sup> (kg/m <sup>3</sup> )	104 (1670)
<i>Compressive Strength(EN-459)</i>		
7 days	Psi (N/mm <sup>2</sup> )	145 (1.0)
28 days	Psi (N/mm <sup>2</sup> )	210 (1.45)
90 days	Psi (N/mm <sup>2</sup> )	424 (2.96)
6 months	Psi (N/mm <sup>2</sup> )	650 (4.5)
12 months	Psi (N/mm <sup>2</sup> )	783 (5.4)
24 months	Psi (N/mm <sup>2</sup> )	800 (5.5)
Tensile Strength (28 days)	Psi (N/mm <sup>2</sup> )	55 (0.38)
Elasticity Moduli	Psi (Mpa)	652.000 (4500)
Vapour Permeability	Gr. Air x m <sup>2</sup> x hour	0.85
Whiteness Index	Y	61.41

**Granulometry:** EF-3.5 granulometry from #23 (0.08mm) for fine joint work and smooth finish coats. Available in a wide range of colors.

**Packing:** 35 kg. (77 lbs.) bags

**Consumption:** Approx. 7.32 sq yards per bag at 1/8" thickness

**Preparation:** Mix for about 5 minutes

## Water Addition:

EcoMortar EF-3.5 – 1.6 gallons (6 liters) – 1.7 gallons (6.5 liters) per bag of 77 lbs. (35 kg.)

## Application:

On clean and dry background not water proofed. Dampen adequately dry or high suction surfaces. Do not apply at temperatures below 40°F (5°C) or above 85°C (30°C). Protect against rain, frost, wind or sun for several days until sufficient hardening has occurred.

The above details are given for information purposes only. Final dosages and application should be checked with our technicians. The Factory reserves the right to alter specifications.



**INITIAL WINDOW AND DOOR ASSESSMENT  
2622 JACKSON STREET, SAN FRANCISCO, CA**



Prepared for:

San Francisco Planning Department  
1650 Mission St. Ste. 400  
San Francisco, CA 94103

June 25th, 2019

## TABLE OF CONTENTS

<b>PROJECT TEAM.....</b>	<b>3</b>
<b>METHODOLOGY.....</b>	<b>4</b>
<b>LIMITATIONS OF SURVEY .....</b>	<b>5</b>
<b>WINDOW SURVEY SUMMARY.....</b>	<b>6</b>
<b>PHOTOS.....</b>	<b>8</b>
<b>REPAIR CONSIDERATIONS.....</b>	<b>12</b>
<b>QUALIFICATIONS.....</b>	<b>13</b>

## **PROJECT TEAM**

### **Architect**

Butler Armsden Architects  
1420 Sutter Street, First Floor  
San Francisco, CA 94109

### **Stone Conservation Consultant**

Chris Daniels  
Stone & Architectural Conservation Consultant  
Old Gospel Hall Back Lane  
Evershot, Dorset DT2 0JT UK

### **Stone Conservation Contractor**

QuarryHouse Inc.  
217 San Anselmo Avenue, Suite #C  
San Anselmo, CA 94960

### **General Contractor**

Upscale Construction  
2151 Union Street, Suite #1  
San Francisco, CA 94123

### **Structural Engineer**

Swartz & Kulpa Engineering  
610 Rocking Horse Road  
Gardnerville, NV 89410

### **Geotechnical Engineer**

Rollo & Ridley, Inc.  
989 Sutter Street  
San Francisco, CA 94109

### **Window & Door Consultant**

West Coast Architectural Millwork  
814 Warrington Ave,  
Redwood City, CA 94063

## METHODOLOGY

This preliminary assessment highlights the general conditions of select window and door units at 2622 Jackson Street residence. For this initial survey a site visit was conducted on June 5, 2019 to execute an interior walk through of the residence surveying both, visually and manually, the overall condition of the units. Windows and doors surveyed are listed numerically following the window and door schedule provided by the architect. The exterior conditions of the windows were assessed visually at ground level.

The conditions of the window and door units were categorized by the following criteria:

- **1. Satisfactory:** The unit is functional and without observed sign of a substantial defect. Needs minimum routine maintenance.
- **2. Marginal:** The unit is functioning but is estimated to be nearing end of useful life. Unit show signs of wear, deterioration, or failure to at least one individual component. Needs routine maintenance and stabilization procedures.
- **3. Poor:** The unit shows significant deterioration and signs of failure or breakdown. The unit may not be functioning as intended, multiple components are missing or degraded, and/or damage affects 30% of unit.
- **4. Unsatisfactory:** The unit is severely deteriorated, does not function as intended, and structurally deficient. Damage affects 30% or more of unit.
- **5. Further Evaluation:** The unit requires further technical evaluation or testing to determine the nature of the potential defect, the corrective action, and associated cost.

## **LIMITATIONS OF SURVEY**

All of the windows are encased at the exterior with stone cladding. It is impossible to see the internal framing, which is where we suspect the critical issues are located on the wood windows. Accessibility to the exterior of the windows on the second and third floor were limited to ground level observations and photographic surveying. Additionally, one window (#204) was inaccessible for inspection due to a blind window condition, it is covered at interior by built-in shelving, therefore operability and interior conditions were not evaluated.

## **SUMMARY**

The existing wood units are from the interior all in good to fair condition. From the exterior certain units are rated as “3. Poor” which are numbers 005, 103, 104, 109, 110, 111, 201, 206, 207, 208, 209, 210, 301, 302, 303, 307, 308, 311, and 312. All of these units are proposed for replacement in kind. They are highlighted in the following table, and there are a total of 19 units proposed for replacement.

## **WINDOW SURVEY**

The windows are all listed in order starting from the Basement going up to the Third Floor, if a window was thought to be original it was listed as such, in the following table.



## LEGEND AND CONDITION NOTES

ORIGINAL	OPERATION	RECOMMEND	COMMENTS - TYPICAL OBSERVED CONDITIONS
Y - Original	Operable	REPAIR - Repair Unit	A. Deteriorated, damaged, or excess putty at glazing.
N - Non-Original (Due To Previous Renovation)	Limited	Component and/or Hardware	B. Deteriorated areas visible at wood component. (e.g. includes checking, cracking, degraded wood component and/or deteriorated paint finish)
	Inoperable	REPLACE - Replace Window Unit and Hardware	C. Component separation. (e.g. includes sill and jamb separation, parting bead and frame separation, etc.)
	Inaccessible		D. Water damage visible. (e.g. includes interior/exterior: sash leakage, water stains, wood rot, trim damage, interior casing damage, etc.)
	Fixed		E. Hardware deteriorated. (e.g. rusted hinges, deteriorated finish, unsmooth operation)

## WINDOW SURVEY SUMMARY

Number	Original	Condition	Operability	Recommend	Comment	General notes
001	Y	2	Operable	Repair	B, E	Hinges were rusted. Security bars installed.
002	Y	2	Operable	Repair	B, E	Hinges were rusted. Security bars installed.
003	Y	2	Operable	Repair	B, E	Hinges were rusted. Security bars installed.
004	Y	2	Operable	Repair	A, B, E	Hinges were rusted. Security bars installed.
005	Y	2	Inoperable	Replace	A, B, E	Inoperable: swollen shut. Unit has frosted/translucent glazing. Security bars installed.
101	Y	2	Operable	Repair	B	Checking at sill.
102	Y	2-3	Limited	Repair	B, E	Limited operation: difficult to operate—not smooth.
103	N	2-3	Operable	Replace	B, D, E	Signs of water damage at trim surround. Non-original unit. Checking at sill.
104	N	2	Fixed	Replace	B	Non-original unit. Direct glazed unit with protectant film applied to glazing.
105	Y	2	Inaccessible	Repair	A, B	Inaccessible due to storage items. Unit has translucent film applied to glazing.
106	Y	1	Not tested	Repair	A, B	Viewed from exterior.
107	Y	1	Not tested	Repair		Viewed from exterior.
108	Y	2	Operable	Repair	A, B	Second line of putty application visible from interior.
109	Y	2-3	Limited	Replace	A, B	Limited operation: upper right casement opens 2" before stopping. Second line of putty application visible from interior. Checking at sill. Southern exposure.
110	Y	2-3	Operable	Replace	A, B, D	Signs of water leakage at bottom sash of fixed unit. Second line of putty application visible from interior. Checking at sill. Southern exposure.
111	Y	2	Operable	Replace	A, B, D	Signs of water leakage at bottom sash of fixed unit. Second line of putty application visible from interior. Checking at sill.
112	Y	2	Operable	Repair	A, B	Second line of putty application visible from interior. Checking at sill.

## WINDOW SURVEY SUMMARY (CONT.)

Number	Original	Condition	Operability	Recommend	Comment	General notes
						Parting bead checking.
202	Y	2	Operable	Repair	A, B	
203	Y	2	Operable	Repair	A, B	Deteriorated jamb.
204	Y	2	Inaccessible	Repair	A, B	Inaccessible blind window, closet shelving blocks unit. Unit has translucent film applied to glazing.
205	Y	2	Operable	Repair	A, B	Stone sill was removed.
206	Y	2-3	Operable	Replace	B, D	Signs of water damage. Unit has translucent film applied to glazing. Stone sill was removed.
207	Y	2-3	Operable	Replace	A, B, D	Signs of water damage at interior trim and wall panel below. Southern exposure.
208	N	2-3	Operable	Replace	A, B, C, D	Sill separating from jamb. Signs of water leakage at sash. Non-original unit. Southern exposure. Unit has in-sash balancers.
209	N	2-3	Operable	Replace	A, B, C, D	Signs of water leakage at sash. Non-original unit. Southern exposure. Unit has duplex balancers.
210	Y	2-3	Operable	Replace	A, B, C	Sash deterioration. Southern exposure.
211	Y	2	Operable	Repair	A, B	
212	Y	2	Operable	Repair	A, B	
213	Y	2	Operable	Repair	A, B	Blind stop and parting bead deteriorated.
214	Y	2	Operable	Repair	A, B	
301	N	2-3	Operable	Replace	A, B, D	Wood rot visible at sill and jamb. Non-original unit. Unit is a pivot window with spring inserts and insulated.
302	N	2-3	Fixed	Replace	A, B	Fixed window with compromised adjacent units. Unit is insulated.
303	N	2-3	Operable	Replace	A, B, D	Wood rot visible at sill and jamb. Non-original unit. Unit is a pivot window with spring inserts and insulated.
304	Y	2	Operable	Repair	A, B	Cracking/checking at sill.
305	Y	2	Operable	Repair	A, B	Stone sill was removed.
306	Y	2	Operable	Repair	A, B	Stone sill was removed.
307	N	3	Operable	Replace	A, B, C, D	Unit has temporary weather protective barrier installed, sill covered w/ copper, and key lock hardware. Non-original unit. Southern exposure.
308	N	3	Operable	Replace	A, B, C, D	Unit has temporary weather protective barrier installed, sill covered w/ copper, and key lock hardware. Non-original unit. Southern exposure.
309	Y	2	Operable	Repair	A, B	
310	Y	2	Operable	Repair	A, B	
311	Y	2-3	Operable	Replace	A, B, C, D	Signs of water damage.
312	Y	2-3	Operable	Replace	A, B, C, D	Signs of water damage.

## DOOR SURVEY SUMMARY

Number	Original	Condition	Operability	Recommend	Comment	General notes
101	Y	1-2	Operable	Repair	B	Deterioration of exterior bottom rail. Oak material, mortise lock hardware, bronze threshold.
102	Y	1-2	Operable	Repair	B	Deterioration of exterior bottom rail. Oak material, mortise lock hardware, bronze threshold.

### GENERAL NOTES

1. Weather-stripping not present in existing units, typical unless otherwise noted.
2. Translucent or UV protectant film was applied to glazing of select units—see V.
3. Please note further evaluation is necessary to determine repair class and specifications.

## PHOTOS - TYPICAL OBSERVED CONDITIONS

The following photos are examples of typical interior window component conditions.

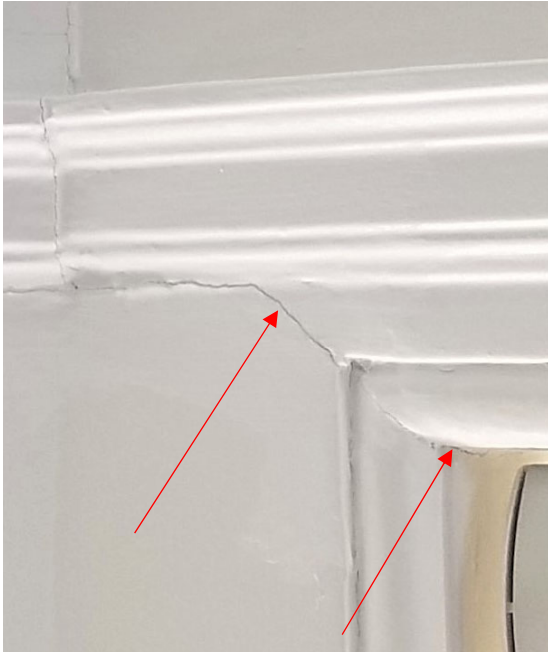


Figure 1 - Damage at trim surround and frame.

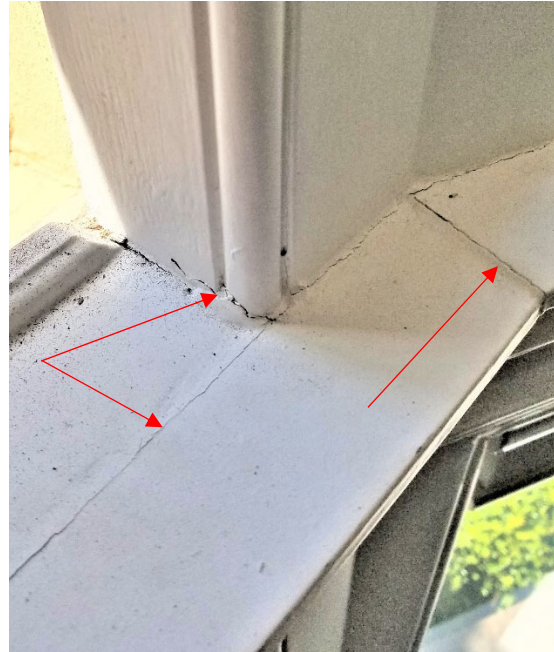


Figure 2 - Cracking at upper unit mullion sill.



Figure 3 - Signs of water leakage at bottom rail corner.



Figure 4 - Deterioration of parting bead.



## PHOTOS - TYPICAL OBSERVED CONDITIONS

The following photos are examples of typical exterior window component conditions.



Figure 5 - Compromised sill, checking and cracking.



Figure 6 - Failing jamb, checking and separation.



Figure 7 - Deteriorated putty at glazing.

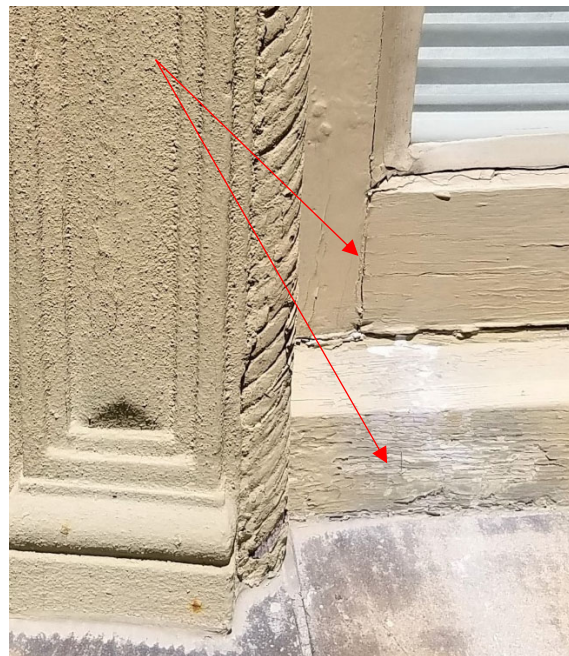


Figure 8 - Distressed bottom rail and deteriorated sill.

## PHOTOS - TYPICAL OBSERVED CONDITIONS

The following photos are the identified non-original windows set in historic openings.



Window 103 - View from Exterior.  
Rear Facade Bay at East.



Window 103 - View of side casement window.



Window 104 - View from Exterior (direct glazed unit) at East side near rear.



Window 208 & 209 - View from Exterior.  
At Front Facade in center.



## PHOTOS - TYPICAL OBSERVED CONDITIONS

The following photos are the identified non-original windows set in historic openings.



Windows 301, 302, 303 - View from Interior.



Window 307 & 308 - View from exterior  
Front facade at roof

## REPAIR CONSIDERATIONS

The following information outlines general repair considerations that will be addressed in subsequent assessments to define scope of repairs, determine existing window/door performance, and define performance upgrades.

### 1. Repairs for material deterioration:

- a. Repair Class I - Routine Maintenance Procedures (For operationally sound windows)
  - i. Some degree of interior and exterior paint removal.
  - ii. Removal and repair of sash (including reglazing where necessary).
  - iii. Repairs to the frame.
  - iv. Weather-stripping and reinstallation of sash.
  - v. Repainting
- b. Repair Class II - Stabilization (To restore operability)
  - i. Additional degree of physical deterioration, especially in vulnerable areas.
  - ii. Repairs to partially decayed or weathered wood that is split, checked, or shows signs of rot.
  - iii. Includes techniques such as: drying wood, treating decayed areas with a fungicide, waterproofing with two or three applications of boiled linseed oil (within 24 hours), filling cracks and holes with putty, repainting surfaces after putty “skin” formation; and other building-up, patching, and/or consolidation (using semi-rigid epoxies) techniques.
- c. Repair Class III - Splices and Parts Replacement
  - i. Replacing deteriorated parts with new matching pieces or splicing new wood into existing members while maintaining profiles.
  - ii. Installation of new sash that can be installed into the existing frame.
  - iii. In-place repair and/or removal of existing window frame which may be in a very deteriorated condition.

\*Typical repair classes modeled after Myers, John H. & United States. National Park Service. Technical Preservation Services Branch. (1981). The repair of historic wooden windows. Washington, D.C: National Park Service, Technical Preservation Services.

### 2. Repairs to Address Leakage:

- a. Weather stripping.
- b. New glazing putty or sealant.
- c. Installing flashings.
- d. Perimeter sealant.
- e. Fixing operable windows.

### 3. Water penetration, air infiltration, and energy performance:

- a. Perform water testing of windows.
- b. Perform air infiltration testing.
- c. Conduct baseline energy evaluation of window assembly.
- d. Mock-up testing of repair scope(s).
- e. Redesign window repairs as necessary.
- f. Retest before window repairs proceed.

## **WEST COAST ARCHITECTURAL MILLWORK COMPANY PROFILE**

West Coast Architectural Millwork (WCAM) is a premier manufacturer of high-end custom wood windows & doors. With office and manufacturing facilities in Redwood City, CA, we work from San Francisco to Santa Barbara on a range of project types from historic renovations and estate residences, to, commercial storefronts and multi-story buildings. WCAM also specializes in comprehensive window repair and restoration. West Coast Architectural was founded by owner-operator George Topalian in 2013 and he holds over 30 years of experience in the window and door industry.

### **Licenses and Certifications**

CA Contractor License #1038046

## **HISTORIC RENOVATION PROJECTS**

<b>Project Name</b>	<b>Architect</b>	<b>Contactor</b>	<b>Project Scope</b>	<b>Location</b>	<b>Date</b>
<b>Acheson Commons</b>	BDE Architecture	MCRT Northern California Construction	Storefronts, arched window units & exterior doors.	Berkeley, CA	2019
<b>Villa Lauriston</b>	Andrew Skurman Architects	Conrado Custom Homes	Existing Window Rehabilitation – 23 Window units, sash only & exterior doors.	Portola Valley, CA	2017
<b>Stanford University – Dolores House &amp; French House</b>	Architectural Resources Group	The Core Group Builders	Existing Window Rehabilitation – New sashes, unit patching, hardware replacement & exterior doors. Survey of 325 window sashes total.	Stanford University, CA	2016
<b>Stanford University Row Houses – Kairos &amp; Phi Kappa Psi</b>	KO Architects	The Core Group Builders	Existing Window Rehabilitation – New sashes, unit patching, hardware replacement, and glass film. Survey of 122 window sashes total.	Stanford University, CA	2015
<b>2622 Jackson Street Residence</b>	Butler Armsden	Upscale Construction	Interior Door Replicas – Fabrication and installation, 7-new units total.	San Francisco, CA	2015
<b>Brady Residence</b>	ODADA	Marrone & Marrone	Window and Door Replacement – 12 total window units & exterior doors.	Hillsborough, CA	2014

**Swartz and Kulpa Engineering Inc**

610 Rocking Horse Rd  
Gardnerville, NV 89410  
Ph 775-450-3794  
Email: ajswartz@swartzandkulpa.com

July 17, 2019

Shannon Ferguson  
Preservation Planner  
Planning Department, City and County of San Francisco  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

Re 2622 Jackson Street, San Francisco, CA

Dear Ms. Ferguson

I am writing this letter at the request of David Sturm, AIA, of Butler Armsden Architects. My firm, Swartz and Kulpa Engineering (SKE) has been retained to conduct a field observation and preliminary assessment of the exterior stone cladding, on the home located at the referenced address. SKE has been involved in the design, engineering and forensic analysis of exterior stone cladding for more than 30 years. We have served as cladding attachment engineers on several historical restoration projects including the U.S. Court of Appeals in San Francisco and the Los Angeles City Hall. We believe we are fully qualified and have the necessary expertise to perform this assessment.

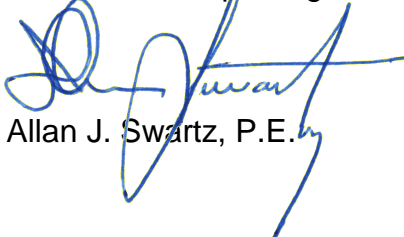
By request, this letter will be confined to offering our opinion concerning the current state of the stone cladding focusing specifically on any safety issues it may pose.

The Sand Stone cladding is in an advanced state of decay. It is badly cracked and crumbling. At several locations portions of the stone have dislodged and exfoliated. Of particular concern is the crumbling stone work located at the main entry portico. The entire portico has broken loose from the building leaving a gap of several inches. Since the portico depends entirely on its connection to the building for lateral support, we do not believe that it is capable of resisting a moderate to strong level earthquake.

Simply put, it is our opinion that the current condition of the cladding represents a significant threat to the life safety of either the inhabitants, or anyone in near proximity during an earthquake. In addition, due to the evidence of past exfoliation of stone, we cannot preclude the possibility of falling stone causing injury at any time. We strongly recommend that remedial action be taken to stabilize and repair the badly damaged and unstable stone veneer. In the interest of safety, we believe that this action should be given the highest priority.

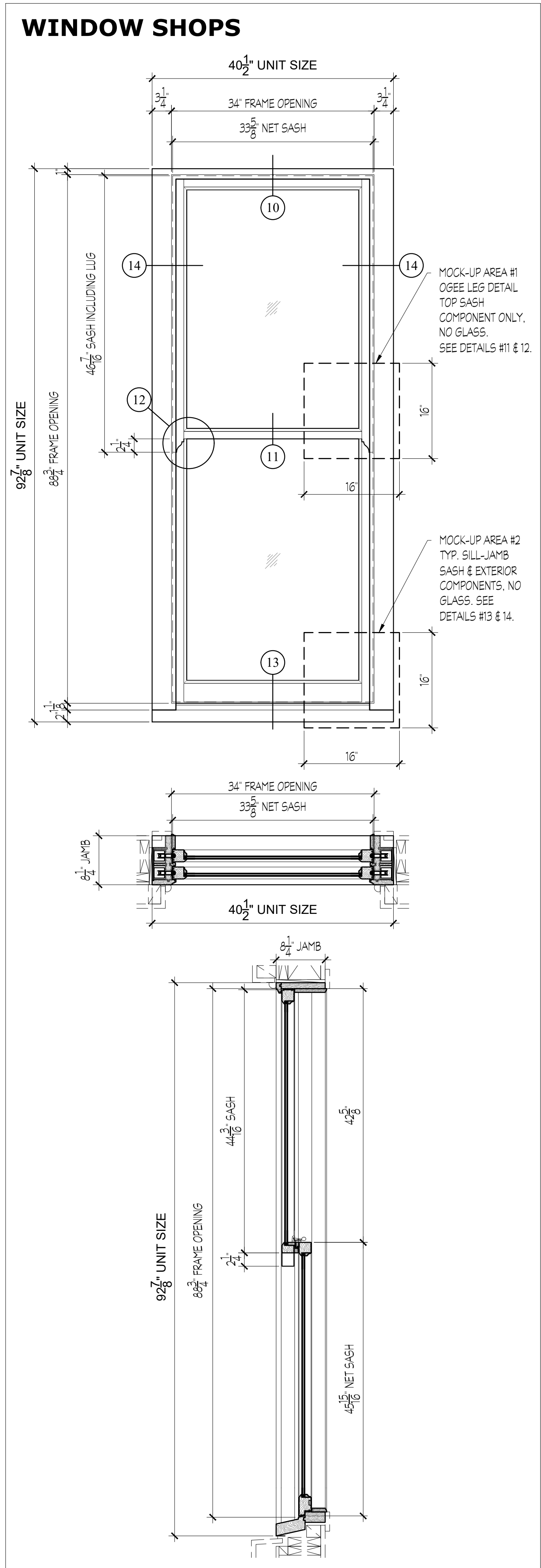
Respectfully

Swartz and Kulpa Engineering, Inc.



Allan J. Swartz, P.E.

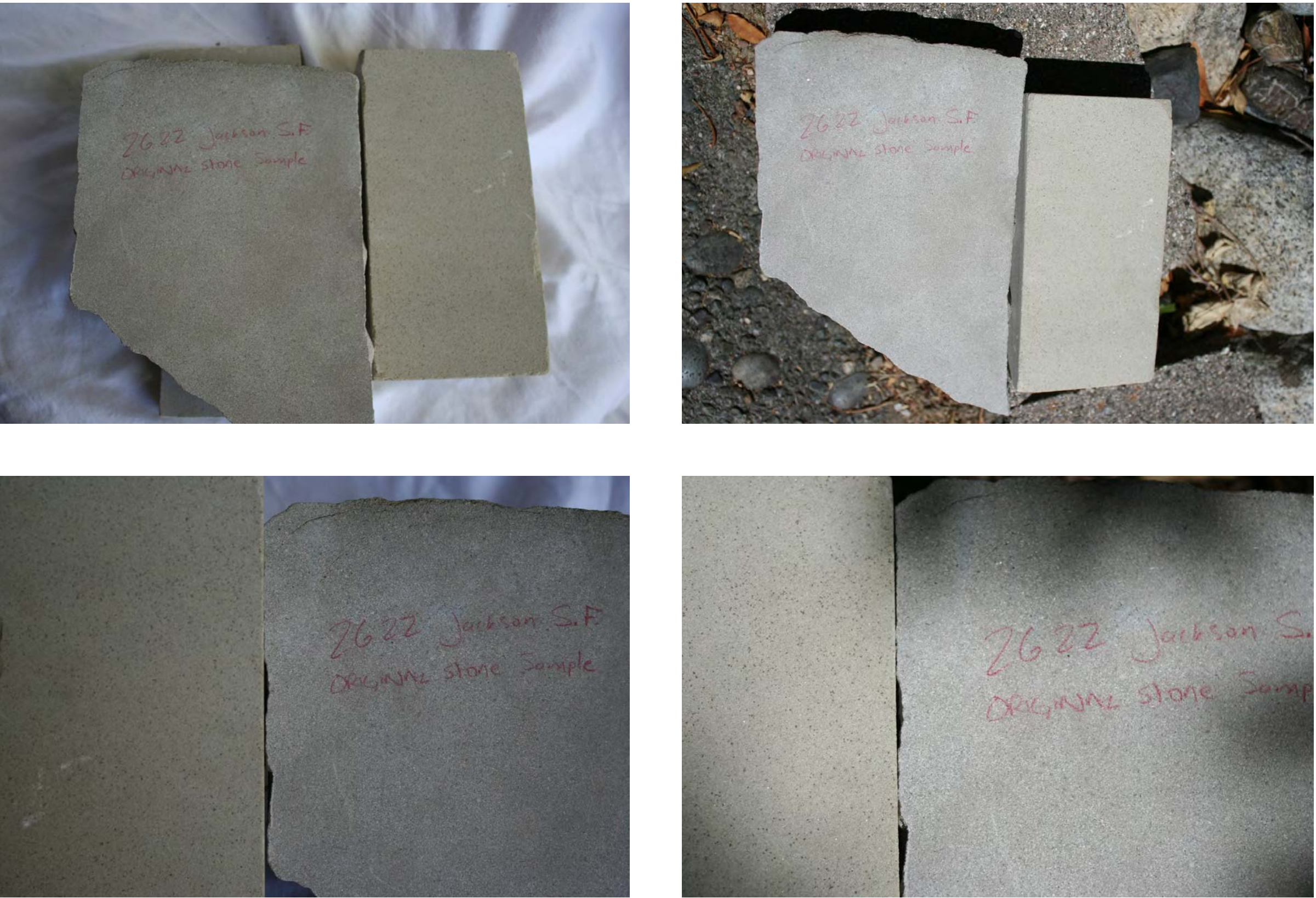




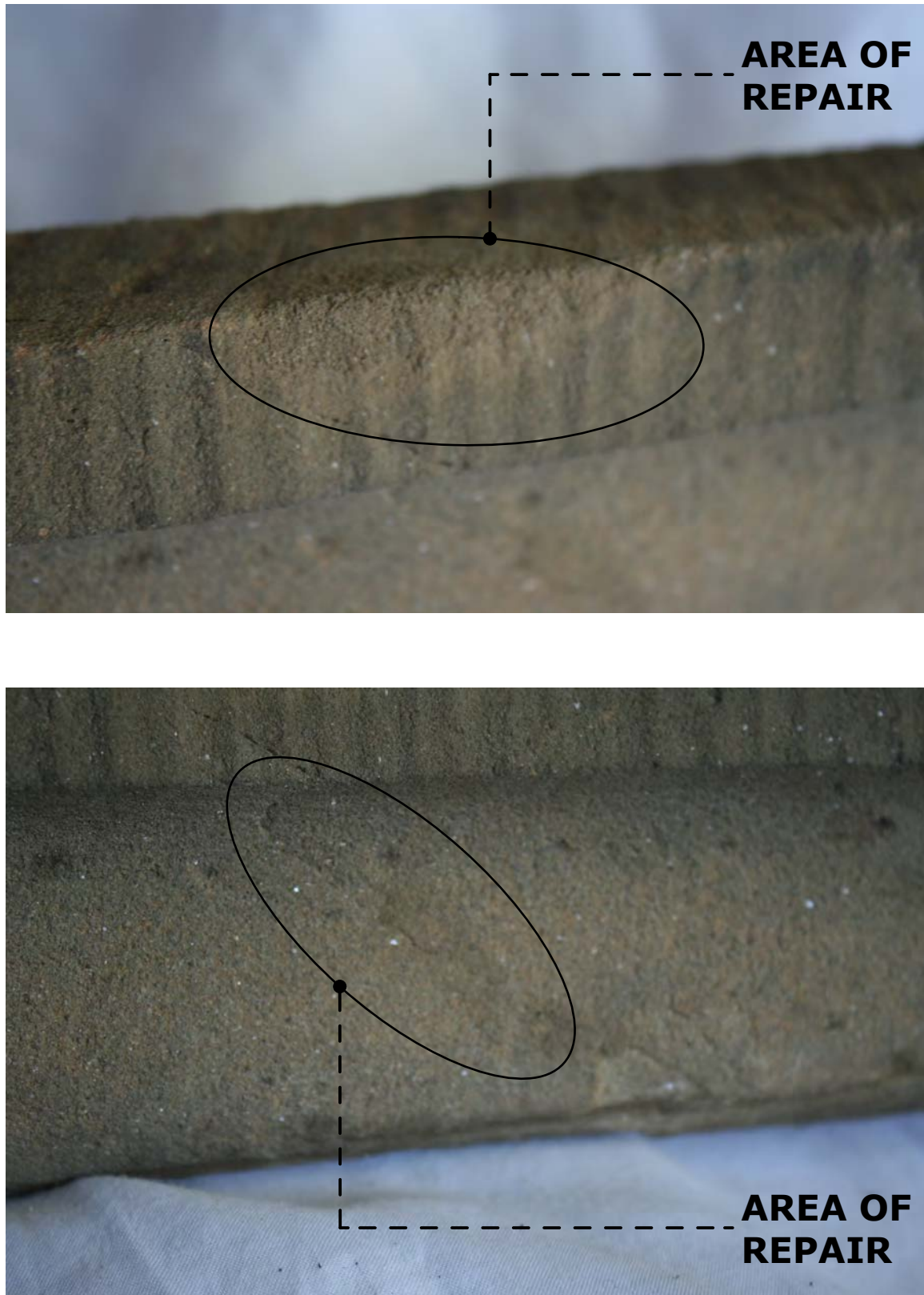
**EXAMPLES OF CARVED STONE BY NICK FAIRPLAY -  
STONE IS FROM COLUSA COUNTY (NOT THE PROPOSED SANDSTONE)**



**BEREA SANDSTONE MATCHES EXISTING STONE**



**MORTAR REPAIR EXAMPLES ON  
EXISTING STONE**



**PHASE 2 PERMIT**

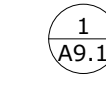
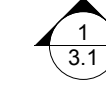
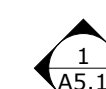
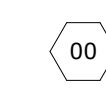
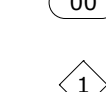
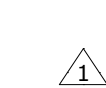
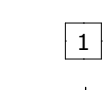

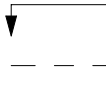

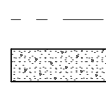
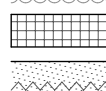



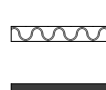

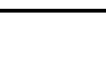




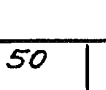


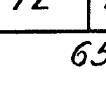



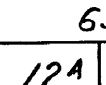


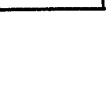


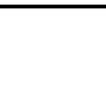

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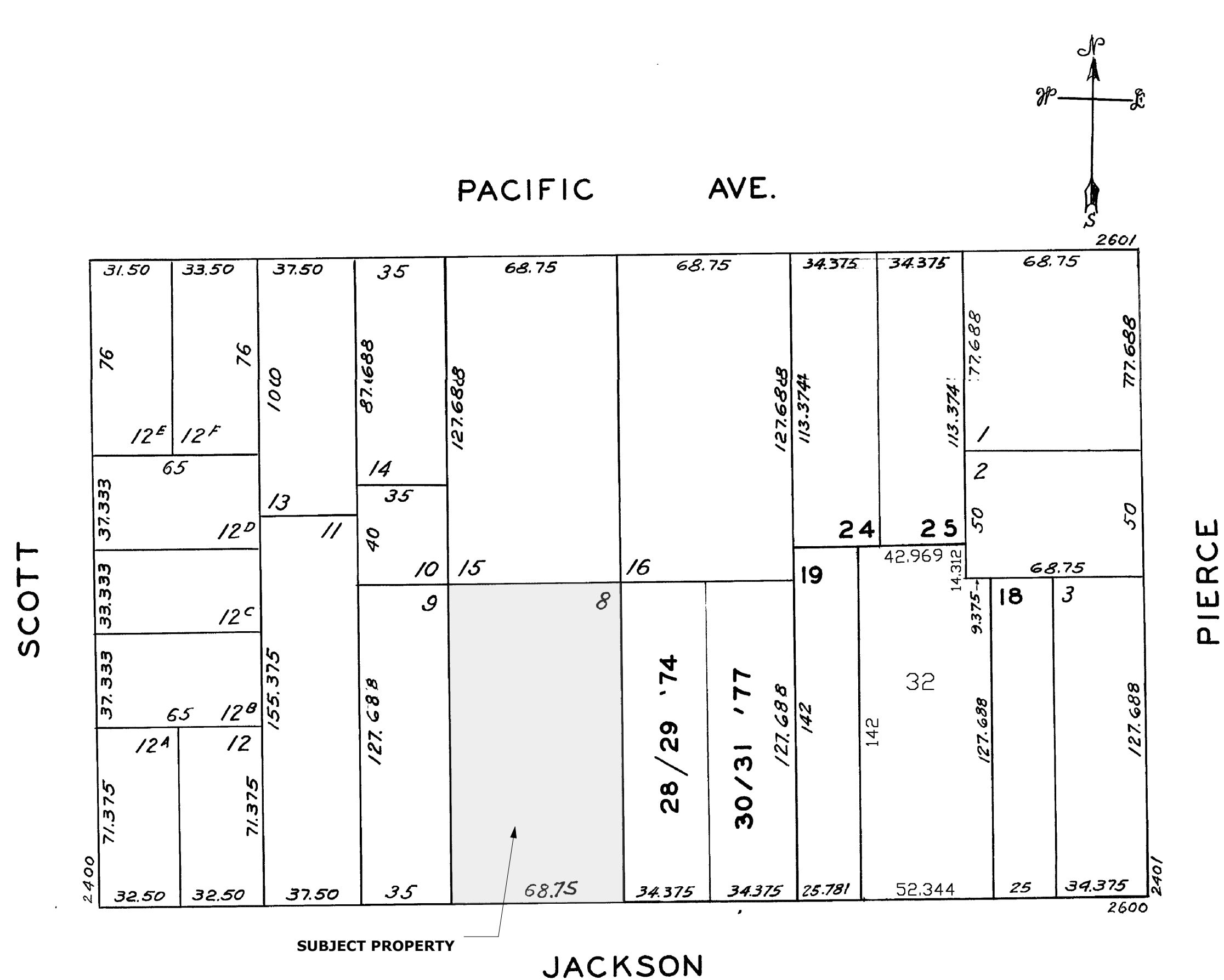
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DATE:	6/27/2018
DRAWN:	DS/MS
CHECKED:	LB/DS
SCALE:	AS NOTED

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FOR HPC REVIEW  
9/4/19

**MATERIAL  
SHEET**



ABBREVIATIONS				SYMBOLS				GENERAL NOTES	PROJECT TEAM	VICINITY MAP
& @ Ø (D) (N) (K)	AND ANGLE AT  DIAMETER NUMBER DEMOLISH EXISTING NEW REPLACE IN KIND	GALV. GA. G.F.I.C.  GL. GR. GRND. GSM. GYP.	GALVANIZED GAGE GROUND FAULT INTERCEPTOR CIRCUIT SMOKE DETECTOR GRADE GROUND GALVANIZED SHEET METAL GYPSUM	S. S.C. SCHED. S.C.R. SD SECT. SHR. SHT. SIM. SL. S.L.D. SPEC. SQ. S.S.D.	SOUTH SOLID CORE SCHEDULE SURVEYED CATALOGED & REPAIRED SMOKE DETECTOR SECTION SHOWER SHEET SIMILAR SLOPE SEE LANDSCAPE DRAWINGS SPECIFICATION SQUARE SEE STRUCTURAL DRAWINGS STAINLESS STEEL STANDARD STEEL STORAGE STRUCTURAL SYMMETRICAL	                                       				



SHEET INDEX				
<b>ARCHITECTURAL:</b>				
A0.0	TITLE SHEET			
A0.1	EXISTING SITE PHOTOS			
A0.2	SITE PLAN			
A1.1	EXISTING PORTICO PLAN			
A1.2	EXISTING ELEVATION SOUTH			
A1.3	EXISTING ELEVATION WEST			
A1.4	EXISTING ELEVATION NORTH			
A1.5	EXISTING ELEVATION EAST			
A1.6	EXISTING SECTION @ PORTICO			
A2.1	PROPOSED PORTICO PLAN			
A2.2	WINDOW/DOOR SCHEDULE			
A2.3	PROPOSED FIRST FLR/BASEMENT			
A2.4	PROPOSED SECOND/THIRD FLOOR PLANS			
A3.1	PROPOSED ELEVATION SOUTH			
A3.1.1	SOUTH ELEV. SUPPLEMENTAL			
A3.2	PROPOSED ELEVATION WEST			
A3.2.1	WEST ELEV. SUPPLEMENTAL			
A3.3	PROPOSED ELEVATION NORTH			
A3.3.1	NORTH ELEV. SUPPLEMENTAL			
A3.4	PROPOSED ELEVATION EAST			
A3.4.1	EAST ELEV. SUPPLEMENTAL			
A3.5	PROPOSED SECTION @ PORTICO			
A8.1	STONE REPAIR DETAILS			
		<b>PHASE 2 PERMIT</b> 06/27/18	<b>REVISION 1</b> 02/01/19	<b>REVISION 2</b> 04/10/19
		<b>REVISION 3</b> 06/25/19		



**2622 RESIDENCE**  
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<b>CHECKED:</b>	LB/DS
<b>SCALE:</b>	AS NOTED

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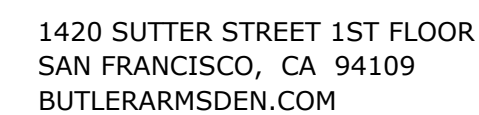
# TITLE SHEET

## A0.0





1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
2. ALL WORK ON THE SITE TO BE CONDUCTED IN SUCH A MANNER AS TO PROTECT THE HISTORIC PROPERTIES.
3. ANY HAZARDOUS MATERIALS EXISTING AT EXTERIOR TO BE IDENTIFIED AND DEALT WITH IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.
4. EXISTING AND REMOVED MATERIALS, SUCH AS BRICKS, STONES, ETC., THAT ARE REMOVED DURING THE COURSE OF THE WORK SHALL BE CATALOGED AND SAVED FOR RE-USE.
5. CONSULTOR TO VERIFY BEARING AND NON-BEARING STATUS OF EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.



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F 415-674-5558

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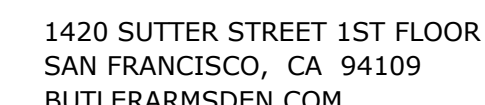
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SCALE:	AS NOTED

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## EXISTING SITE PHOTOS



1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
2. ALL WORK ON THE SITE TO BE CONDUCTED IN SUCH A MANNER AS TO PROTECT THE EXISTING HISTORIC REMAINS.
3. ANY HAZARDOUS MATERIALS EXISTING AT EXTERIOR TO BE IDENTIFIED AND DEALT WITH IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.
4. ANY EXISTING REMAINS OF BROADWAY ELEMENTS, ETC. THAT ARE REMOVED DURING THE COURSE OF THE WORK SHALL BE CATALOGED AND SAVED FOR RE-USE.
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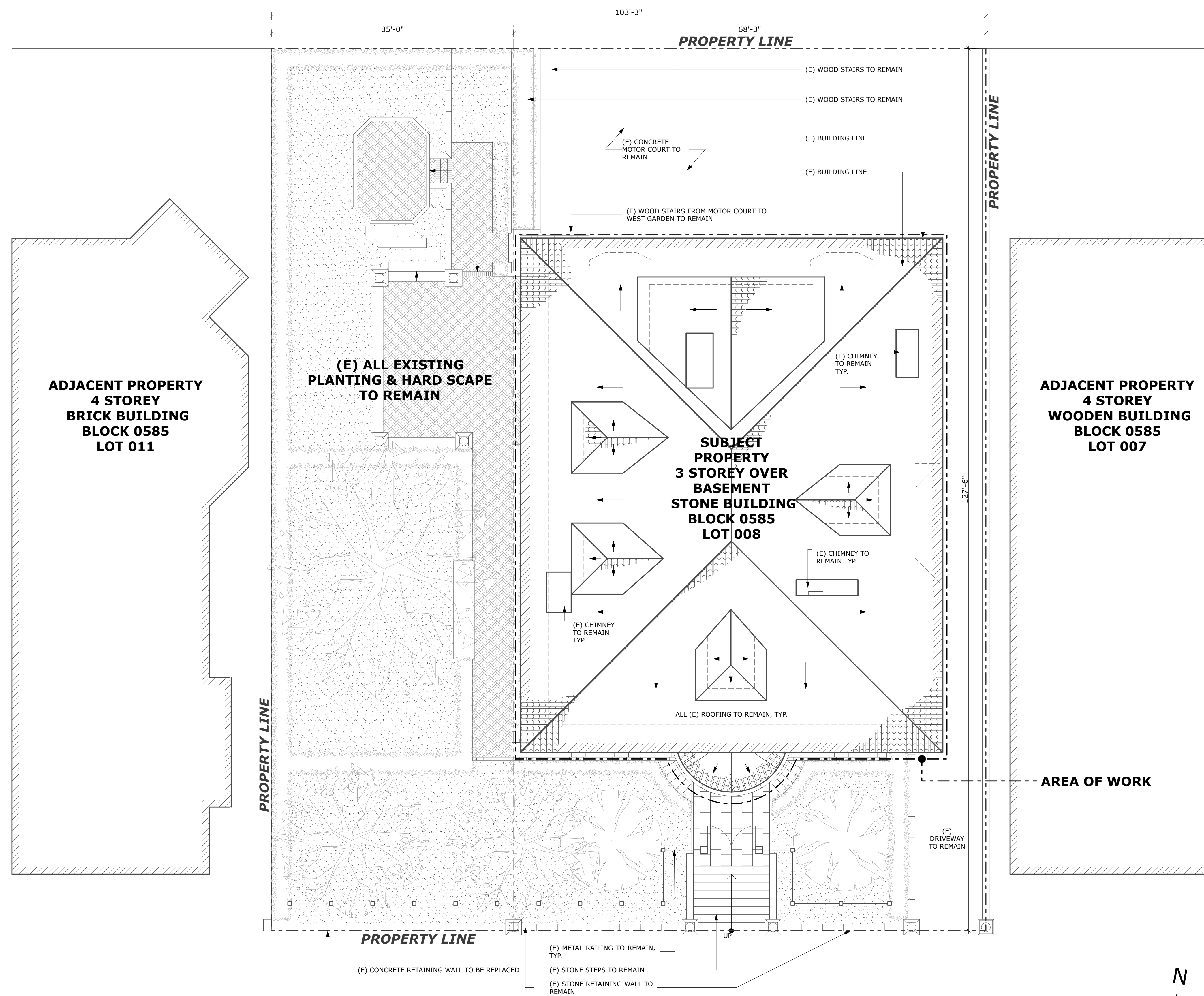
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SCALE:	AS NOTED

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## SITE PLAN

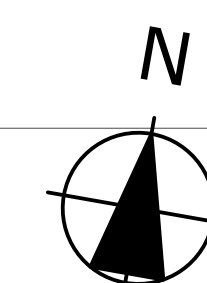
## A0.2



**1 SITE PLAN**  
SCALE: 1/8" = 1'-0"



1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
2. ALL WORK ON THE SITE TO BE CONDUCTED IN SUCH A MANNER AS TO PROTECT THE HISTORIC PROPERTIES.
3. ANY HAZARDOUS MATERIALS EXISTING AT EXTERIOR TO BE IDENTIFIED AND DEALT WITH IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.
4. EXISTING AND REMOVED ARROW POINTS, BOWS, ETC., THAT ARE REMOVED DURING THE COURSE OF THE WORK SHALL BE CATALOGED AND SAVED FOR RE-USE.
5. CONTRACTOR TO VERIFY BEARING AND NON-BEARING STATUS OF EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.

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EXISTING  
PORTICO PLAN

## A1.1

1

### EXISTING PORTICO PLAN

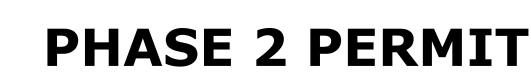
SCALE: 1/2" = 1'-0"



1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
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EXISTING ELEV.  
SOUTH

## A1.2

1

### EXISTING SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



GENERAL PRESERVATION NOTES

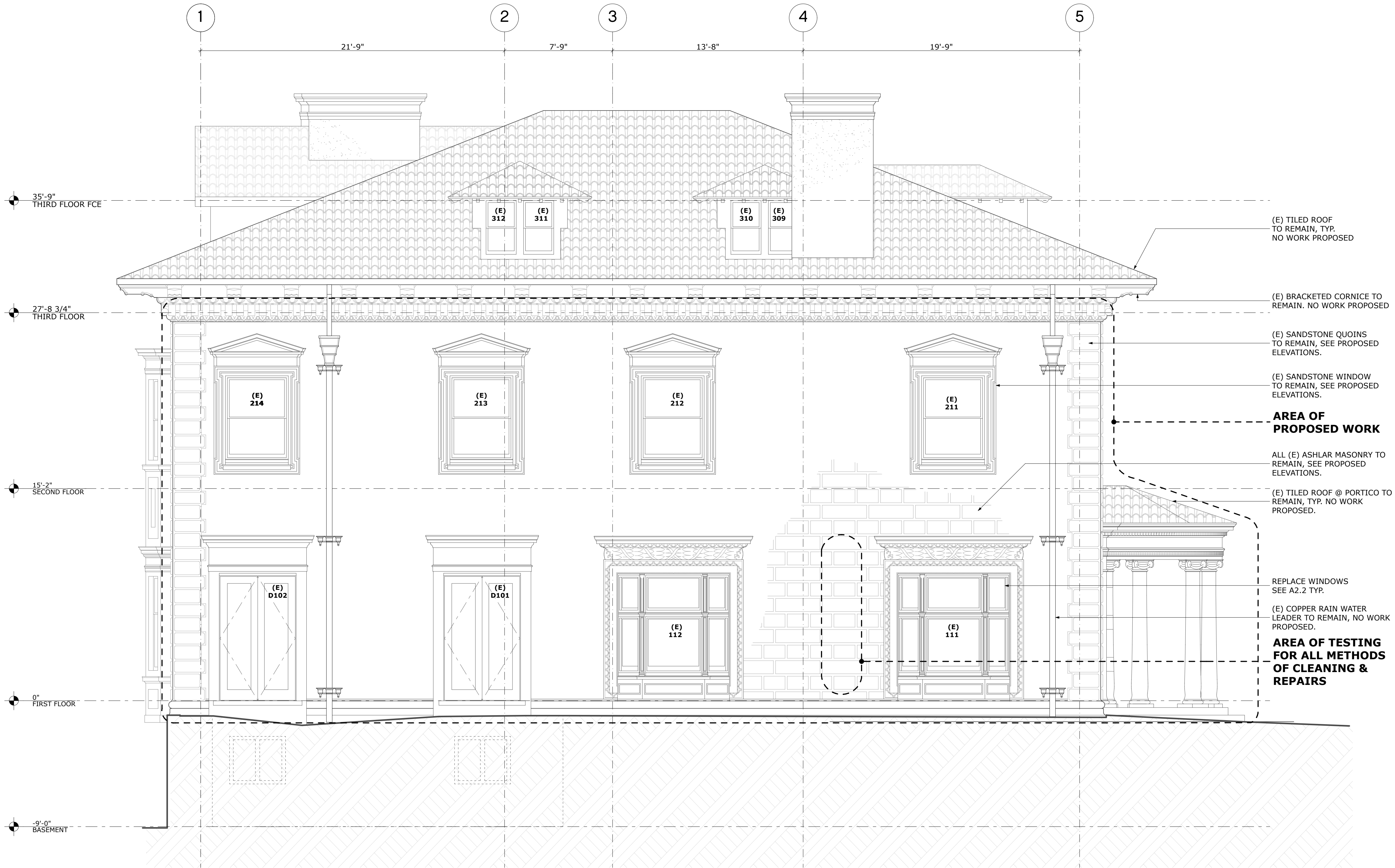
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PHASE 2 PERMIT

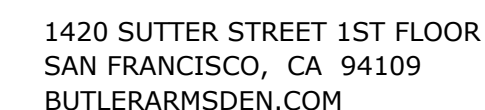
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SCALE:	AS NOTED

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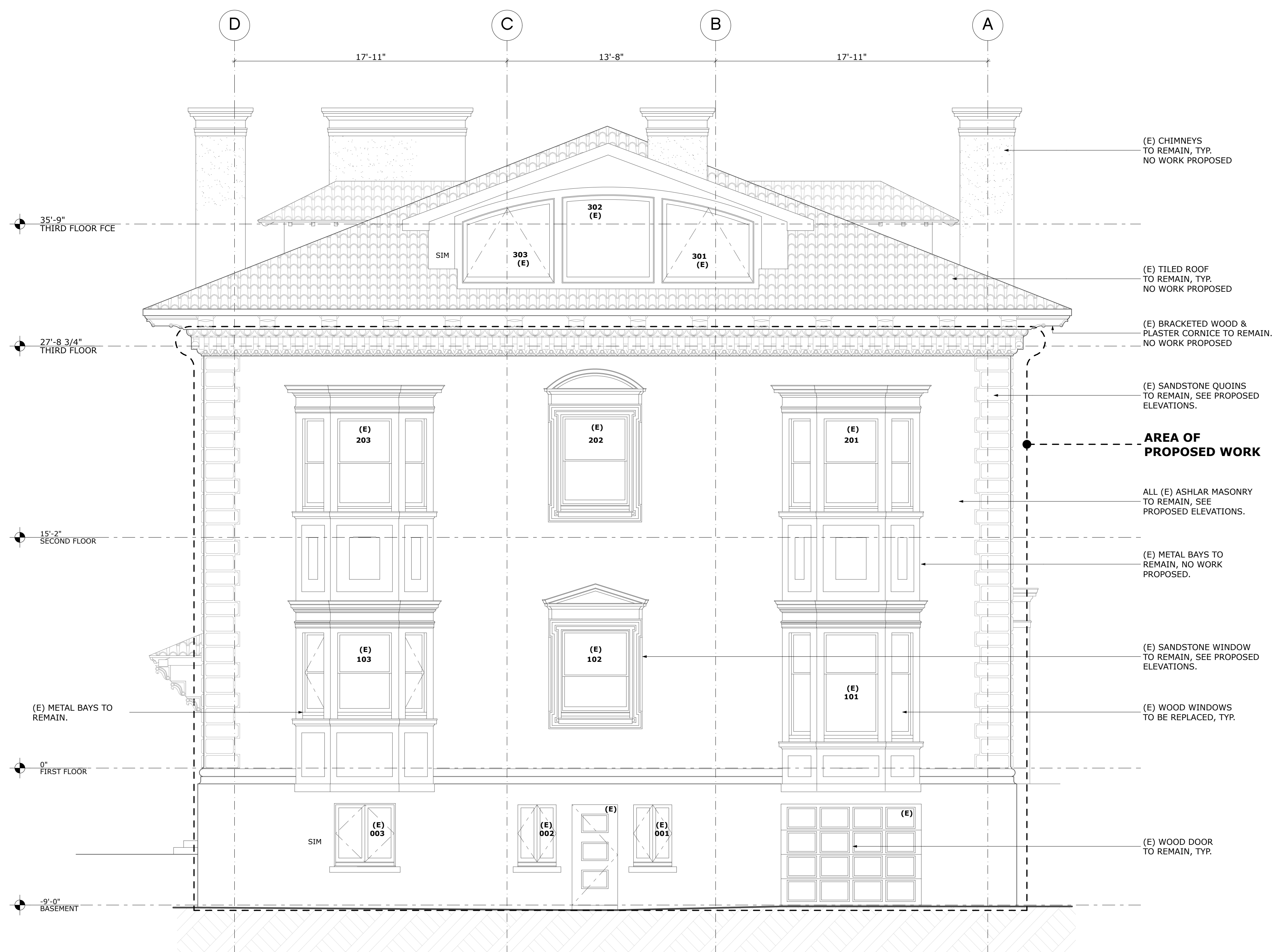
EXISTING ELEV.  
WEST

1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
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EXISTING ELEV.  
NORTH

## A1.4

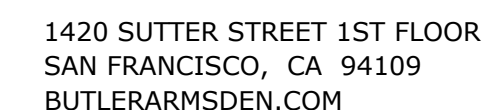
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### EXISTING NORTH ELEVATION

SCALE: 1/4" = 1'-0"

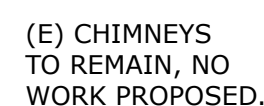


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(E) TILED ROOF  
TO REMAIN, NO  
WORK PROPOSED.

**AREA OF PROPOSED WORK**

**STABILIZE W/TEMPORARY BRACING AS REQUIRED**

(E) TILED ROOF @  
PORTICO TO REMAIN,  
TYP. NO WORK  
PROPOSED.

(E) COLUMNS TO BE PRESERVED AS POSSIBLE, TYP.

(E) METAL GATE AND  
RAILING TO REMAIN, NO  
WORK PROPOSED.

FIXED PANEL  
NOT GLAZED

FIXED PANEL  
NOT GLAZED

35'-9"  
THIRD FLOOR FCE

\_\_\_\_ (E) BRACKETED WOOD & PLASTER CORNICE  
TO REMAIN. NO WORK PROPOSED.

27'-8 3/4"  
THIRD FLOOR

(E) SANDSTONE QUOINS  
— TO REMAIN, SEE PROPOSED  
ELEVATIONS.

(E) SANDSTONE WINDOW  
— TO REMAIN, SEE PROPOSED  
ELEVATIONS.

ALL ASHLAR COURSES  
— TO REMAIN, SEE PROPOSED  
ELEVATIONS.

15'-2"  
SECOND FLOOR

(E) COPPER RAIN WATER  
LEADER TO REMAIN, NO WORK  
PROPOSED.

0°  
FIRST FLOOR

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EXISTING ELEV.  
EAST

## A1.5

1

### EXISTING EAST ELEVATION

SCALE: 1/4" = 1'-0"

GENERAL PRESERVATION NOTES

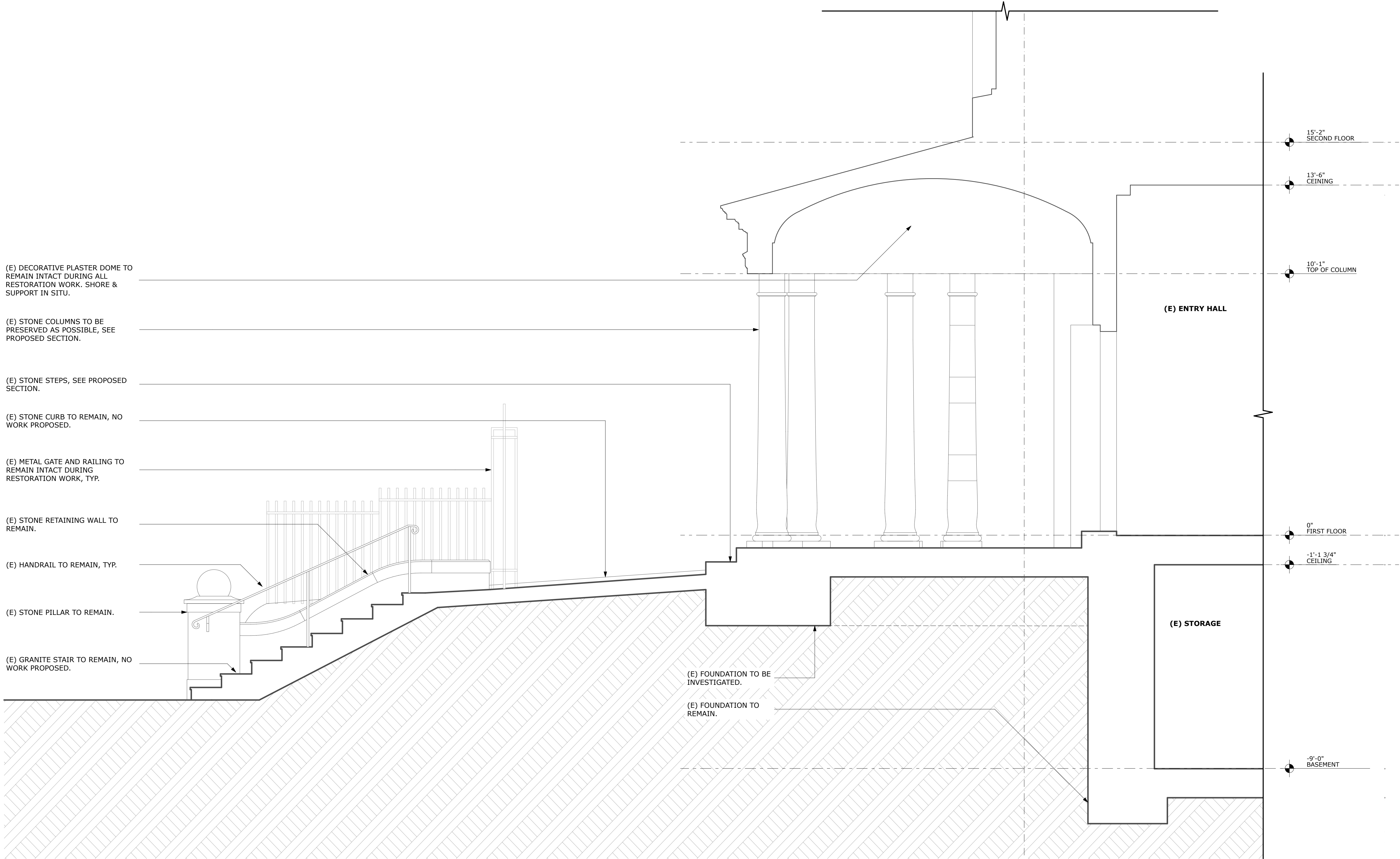
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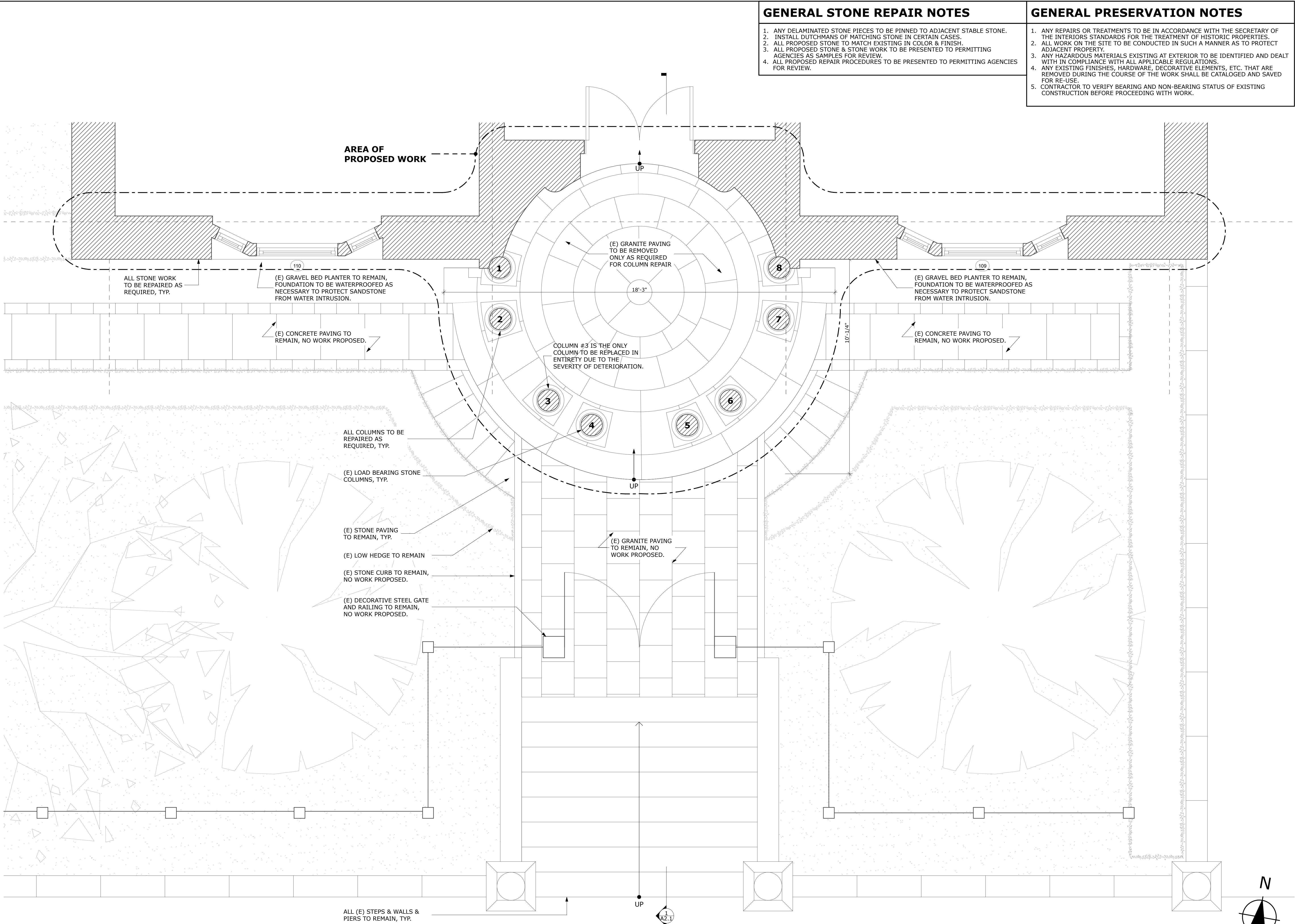
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EXISTING  
SECTION AT  
PORTICO



PRINTED: 8/20/19 1:49 PM

Volumes/baa-projects/projects-folder/Projects - Active/jobs 1700/1702/2622 Jackson Facade/8. Arch/CAD/8.02 Project Drawings/A2 - Plans/1702-2622 Jackson\_HPCreviewSet\_190820\_v2.1.pln



### GENERAL STONE REPAIR NOTES

1. ANY DELAMINATED STONE PIECES TO BE PINNED TO ADJACENT STABLE STONE.
2. INSTALL DUTCHMANS OF MATCHING STONE IN CERTAIN CASES.
3. ALL PROPOSED STONE & STONE WORK TO BE PRESENTED TO PERMITTING AGENCIES AS SAMPLES FOR REVIEW.
4. ALL PROPOSED REPAIR PROCEDURES TO BE PRESENTED TO PERMITTING AGENCIES FOR REVIEW.

### GENERAL PRESERVATION NOTES

1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
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**PROPOSED  
PORTICO PLAN**

**1**

### PROPOSED PORTICO PLAN

SCALE: 1/2" = 1'-0"

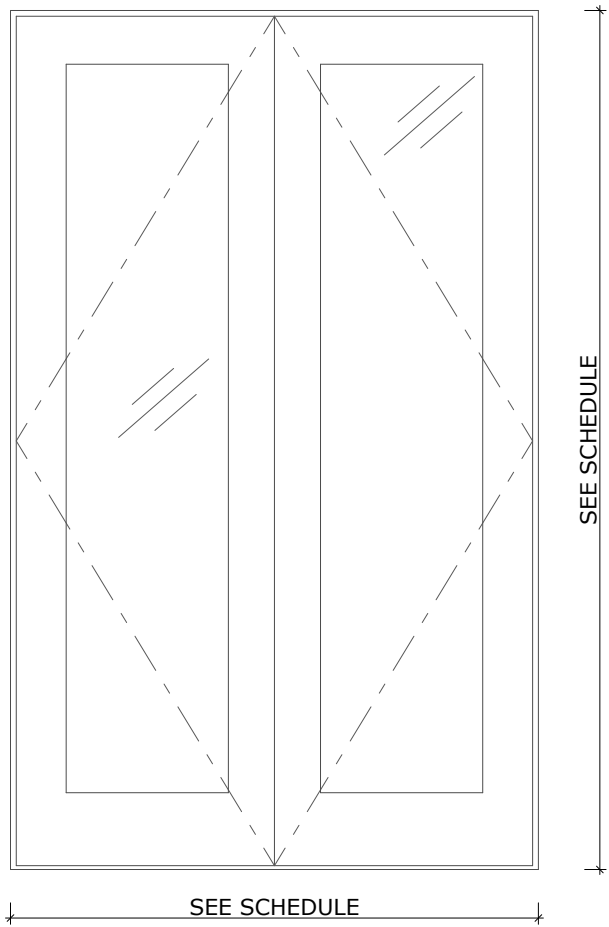
**A2.1**



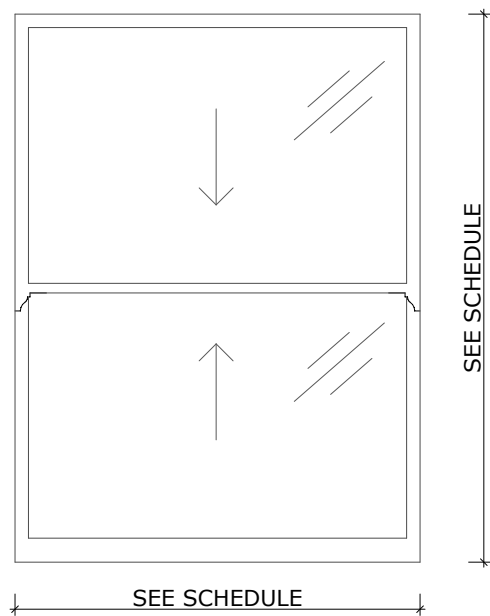
MARK	TYPE	MANUF.	LEAF						FRAME		REMARKS
			W	H	THK.	MATERIAL	FINISH	GLAZING	MATERIAL	FINISH	
D101	1	CUSTOM BY WCAM	5'-2"	6'-8"	0'-1 3/4"	S.G. WOOD	CLEAR STAIN	(E) TO REMAIN	P.G. WOOD	PAINTED	REPAIR AS REQUIRED
D102	1	CUSTOM BY WCAM	5'-2"	6'-8"	0'-1 3/4"	S.G. WOOD	CLEAR STAIN	(E) TO REMAIN	P.G. WOOD	PAINTED	REPAIR AS REQUIRED

3 DOOR SCHEDULE

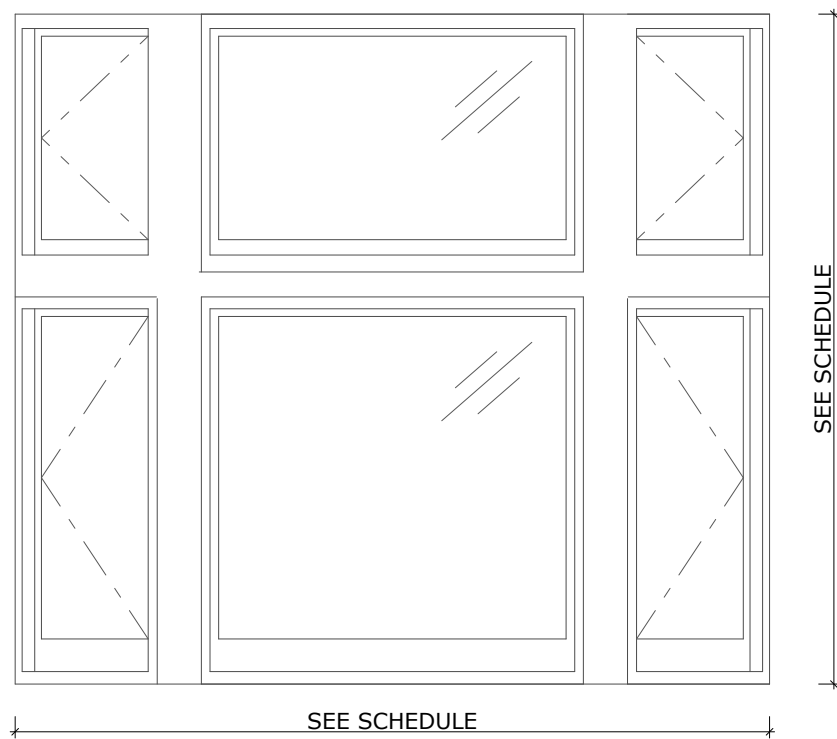
TYPE 1 DOOR



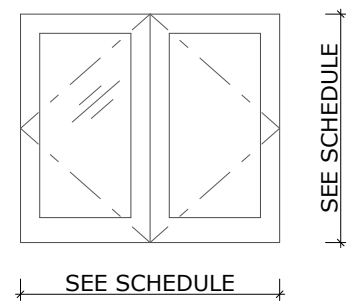
TYPE A - DOUBLE HUNG



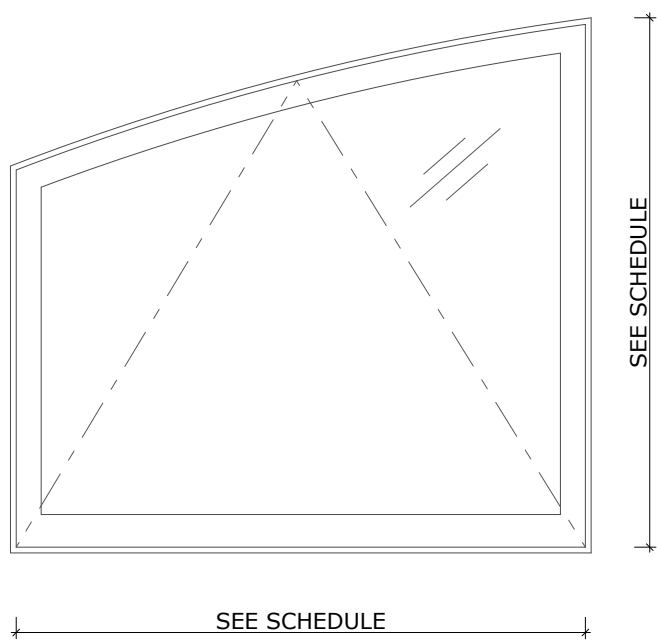
TYPE B - CENTER FIXED W/ 4 CASEMENTS



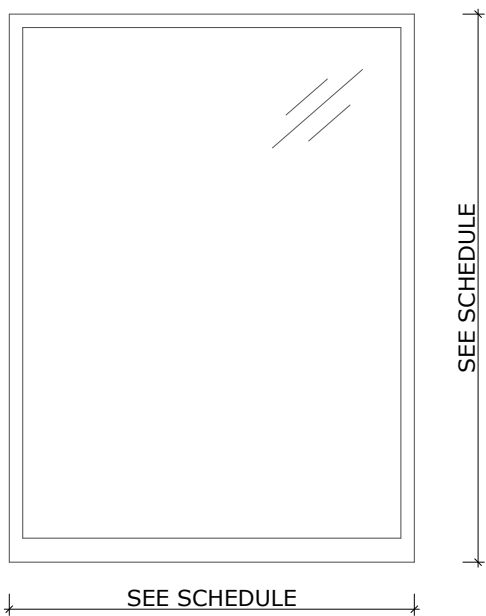
TYPE C - CASEMENT



TYPE D - AWNINGS



TYPE E - FIXED



4 DOOR TYPES

2 WINDOW TYPES

WINDOW SCHEDULE										
MARK	TYPE	WIDTH	HEIGHT	MANUFACTURER	OPERATION	MATERIAL	FINISH	GLAZING	HARDWARE	NOTES/REMARKS
001	C	2'-6"	4'-0"	CUSTOM BY WCAM	CASEMENT	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
002	C	2'-6"	4'-0"	CUSTOM BY WCAM	CASEMENT	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
003	C	4'-0"	4'-0"	CUSTOM BY WCAM	CASEMENT	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
004	C	2'-8 1/2"	2'-4 1/2"	CUSTOM BY WCAM	CASEMENT	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
005	C	2'-8 1/2"	2'-4 1/2"	CUSTOM BY WCAM	CASEMENT	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
101	A	3'-6"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
102	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
103	A	3'-6"	6'-0"	CUSTOM BY WCAM	DBL-HUNGFT...	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
104	E	3'-0"	5'-8"	CUSTOM BY WCAM	FIXED	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
105	A	2'-7 1/2"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
106	A	2'-7 1/2"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
107	A	2'-7 1/2"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
108	B	3'-9"	6'-0"	CUSTOM BY WCAM	FIXED/CASEM	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
109	B	3'-9"	6'-0"	CUSTOM BY WCAM	FIXED/CASEM	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
110	B	3'-9"	6'-0"	CUSTOM BY WCAM	FIXED/CASEM	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
111	B	3'-9"	6'-0"	CUSTOM BY WCAM	FIXED/CASEM	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
112	B	3'-9"	6'-0"	CUSTOM BY WCAM	FIXED/CASEM	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
201	B	3'-3"	6'-0"	CUSTOM BY WCAM	FIXED/CASEM	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
202	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
203	B	3'-3"	6'-0"	CUSTOM BY WCAM	FIXED/CASEM	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
204	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
205	A	2'-8 1/2"	2'-4 1/2"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
206	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL -HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
207	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
208	A	1'-7 1/2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
209	A	1'-7 1/2"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
210	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
211	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
212	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
213	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
214	A	4'-0"	6'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
301	D	6'-0"	5'-0"	CUSTOM BY WCAM	AWNING	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
302	D	6'-0"	5'-0"	CUSTOM BY WCAM	AWNING	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
303	D	6'-0"	5'-0"	CUSTOM BY WCAM	AWNING	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
304	C	2'-8 1/2"	2'-4 1/2"	CUSTOM BY WCAM	CASEMENT	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
305	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
306	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
307	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
308	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
309	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
310	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPAIR AS REQUIRED
311	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND
312	A	2'-2"	5'-0"	CUSTOM BY WCAM	DBL-HUNG	P.G. WOOD	PAINTED	CLEAR LOW-E	MATCH EXIST'G	REPLACE IN KIND

1 WINDOW SCHEDULE

PHASE 2 PERMIT

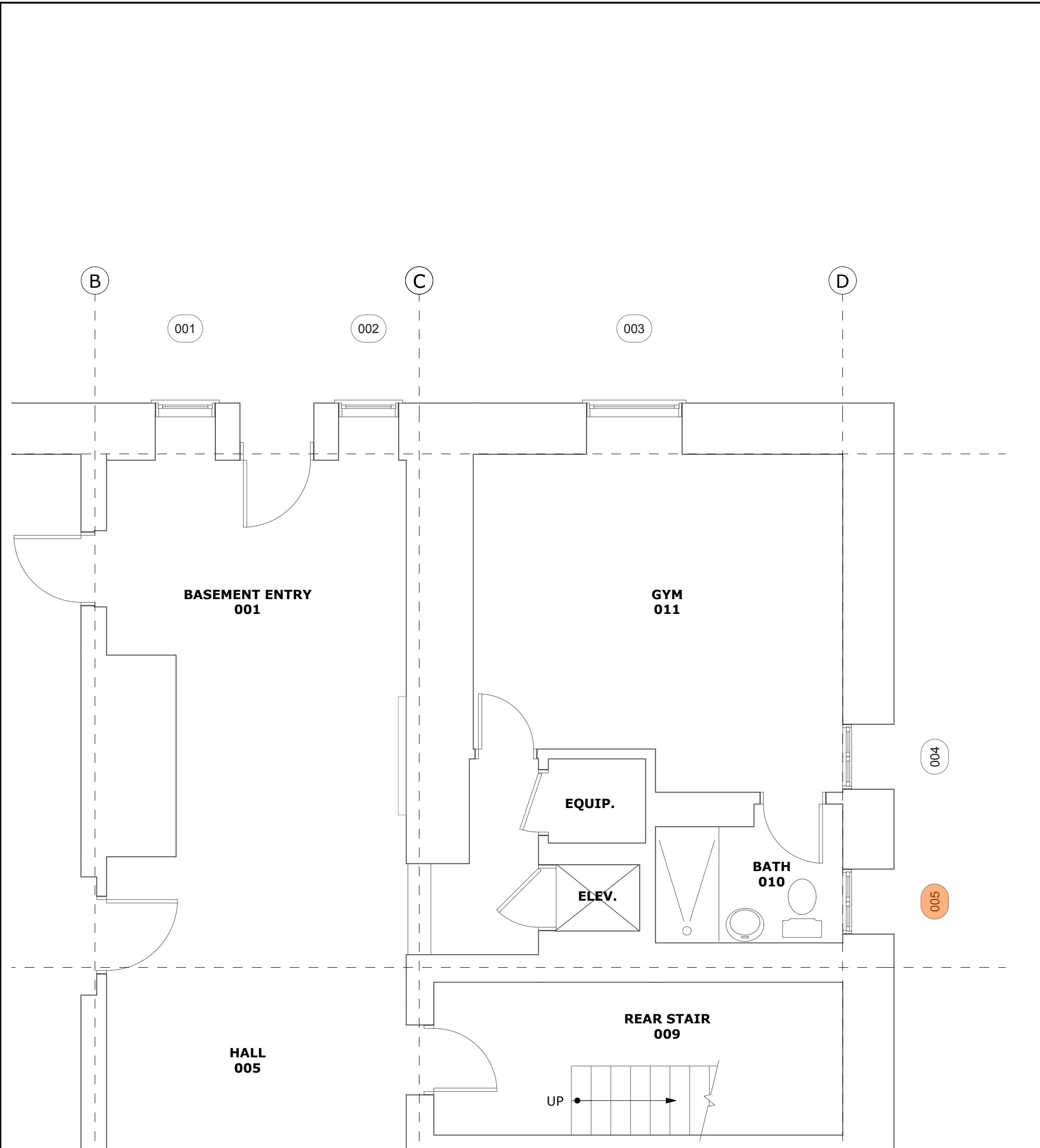
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SCALE:	AS NOTED

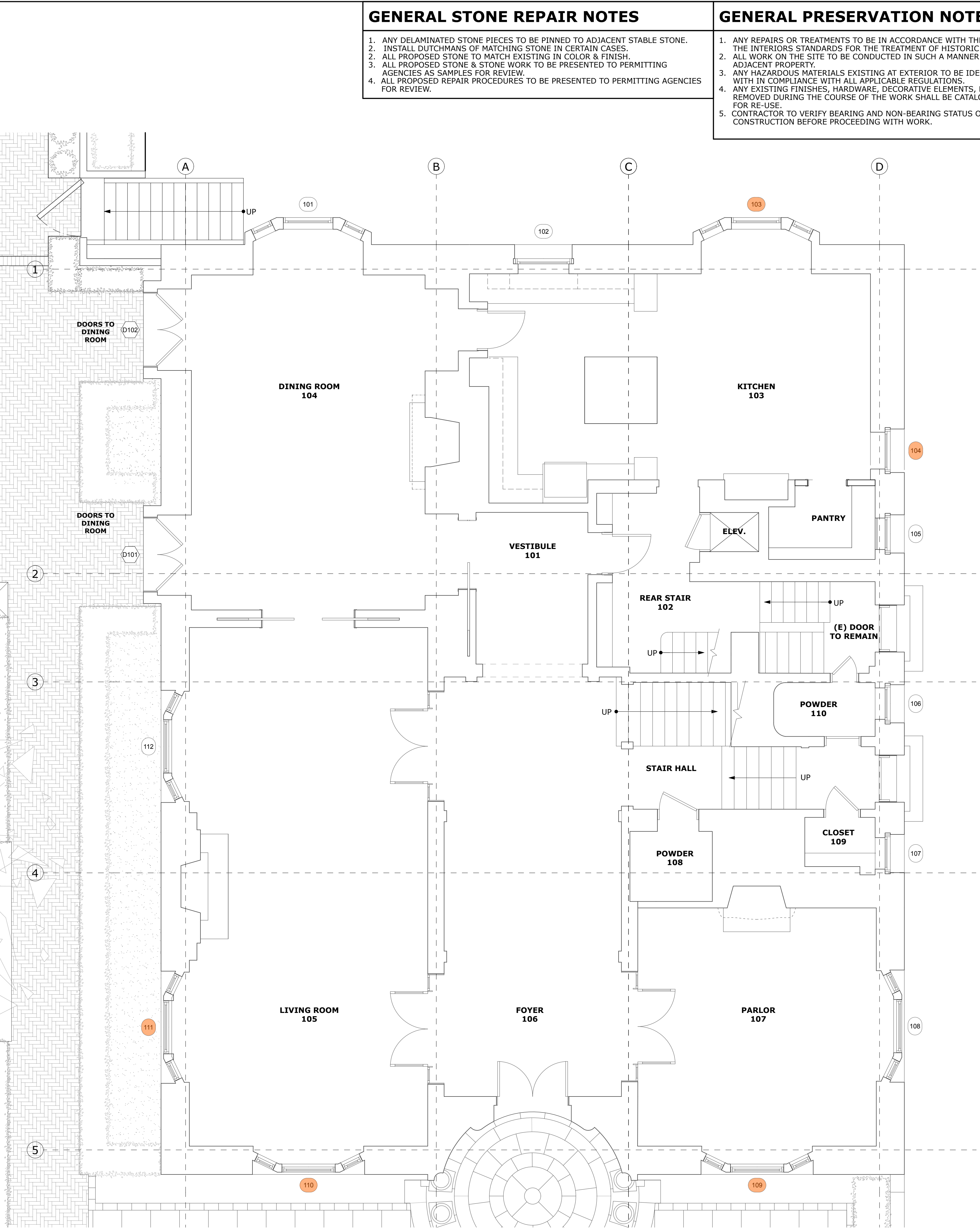
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FOR HPC REVIEW  
8/20/19  
WINDOW &  
EXTERIOR DOOR  
SCHEDULE

Volumes/baa-projects/projects-folder/Projects - Active/jobs 1700/1702 2622 Jackson Facade/8. Arch/CAD/8.02 Project Drawings/A2 - Plans/1702 2622 Jackson\_HPCReviewSet\_190820\_v21.pln

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2 PARTIAL BASEMENT PLAN  
SCALE: 1/4" = 1'-0"



1 FIRST FLOOR PLAN  
SCALE: 1/4" = 1'-0"

GENERAL STONE REPAIR NOTES	GENERAL PRESERVATION NOTES
<div>1. ANY DELAMINATED STONE PIECES TO BE PINNED TO ADJACENT STABLE STONE.</div> <div>2. INSTALL DUTCHMANS OF MATCHING STONE IN CERTAIN CASES.</div> <div>3. ALL PROPOSED STONE TO MATCH EXISTING IN COLOR &amp; FINISH.</div> <div>3. ALL PROPOSED STONE &amp; STONE WORK TO BE PRESENTED TO PERMITTING AGENCIES AS SAMPLES FOR REVIEW.</div> <div>4. ALL PROPOSED REPAIR PROCEDURES TO BE PRESENTED TO PERMITTING AGENCIES FOR REVIEW.</div>	<div>1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.</div> <div>2. ALL WORK ON THE SITE TO BE CONDUCTED IN SUCH A MANNER AS TO PROTECT ADJACENT PROPERTY.</div> <div>3. ANY HAZARDOUS MATERIALS EXISTING AT EXTERIOR TO BE IDENTIFIED AND DEALT WITH IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.</div> <div>4. ANY EXISTING FINISHES, HARDWARE, DECORATIVE ELEMENTS, ETC. THAT ARE REMOVED DURING THE COURSE OF THE WORK SHALL BE CATALOGED AND SAVED FOR RE-USE.</div> <div>5. CONTRACTOR TO VERIFY BEARING AND NON-BEARING STATUS OF EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.</div>

BUTLER ARMSDEN  
ARCHITECTS

1420 SUTTER STREET 1ST FLOOR  
SAN FRANCISCO, CA 94109  
BUTLERARMSDEN.COM

E INFO@BUTLERARMSDEN.COM  
T 415-674-5554  
F 415-674-5558

2622 RESIDENCE  
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PROPOSED  
FIRST FLOOR &  
BASEMENT  
PLANS



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Volumes/baa-projects/projects-folder/Projects - Active/jobs 1700/1702 2622 Jackson Facade/8. Arch/CAD/8.02 Project Drawings/A2 - Plans/1702 2622 Jackson\_HPCreviewSet\_190820\_v21.dgn

GENERAL STONE REPAIR NOTES

1. ANY DELAMINATED STONE PIECES TO BE PINNED TO ADJACENT STABLE STONE.
2. INSTALL DUTCHMANS OF MATCHING STONE IN CERTAIN CASES.
3. ALL PROPOSED STONE TO MATCH EXISTING IN COLOR & FINISH.
4. ALL PROPOSED STONE & STONE WORK TO BE PRESENTED TO PERMITTING AGENCIES AS SAMPLES FOR REVIEW.
5. ALL PROPOSED REPAIR PROCEDURES TO BE PRESENTED TO PERMITTING AGENCIES FOR REVIEW.

GENERAL PRESERVATION NOTES

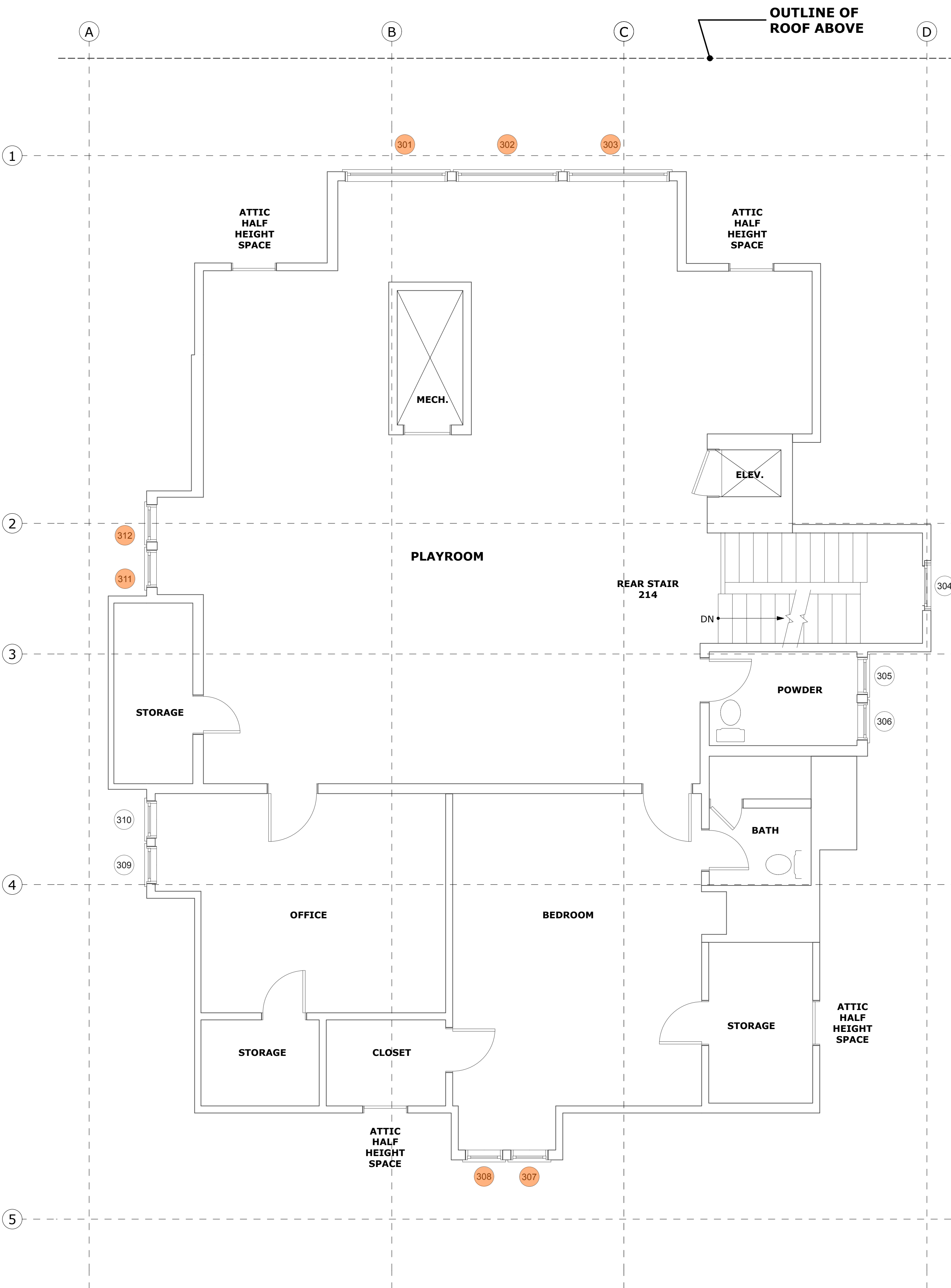
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SAN FRANCISCO, CA 94109  
BUTLERARMSDEN.COM

E INFO@BUTLERARMSDEN.COM  
T 415-674-5554  
F 415-674-5558

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2622 JACKSON ST., SAN FRANCISCO, CA 94115



2 THIRD FLOOR  
SCALE: 1/4" = 1'-0"



1 SECOND FLOOR  
SCALE: 1/4" = 1'-0"

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SCALE:	AS NOTED

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8/30/19  
PROPOSED  
SECOND &  
THIRD FLOOR  
PLANS

GENERAL STONE REPAIR NOTES

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4. ALL PROPOSED REPAIR PROCEDURES TO BE PRESENTED TO PERMITTING AGENCIES FOR REVIEW.

GENERAL PRESERVATION NOTES

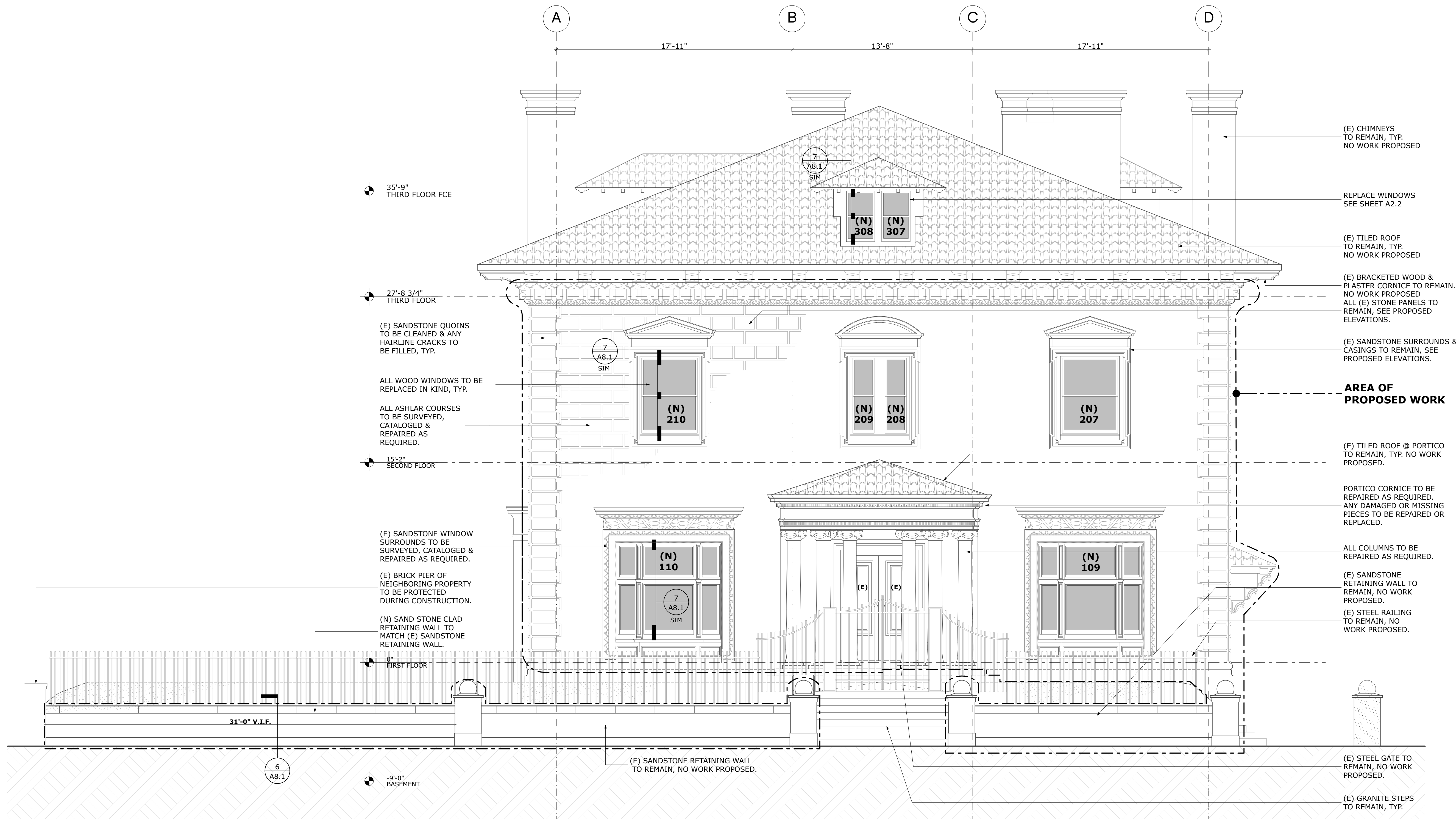
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E INFO@BUTLERARMSDEN.COM  
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1 PROPOSED SOUTH ELEVATION  
SCALE: 1/4" = 1'-0"

PHASE 2 PERMIT

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PROPOSED ELEV.  
SOUTH

**A3.1**





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1 SOUTH ELEVATION STONE SURVEY

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SOUTH ELEV.  
SUPPLEMENTAL

**A3.1.1**



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GENERAL STONE REPAIR NOTES	GENERAL PRESERVATION NOTES
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ARCHITECTS

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SAN FRANCISCO, CA 94109  
BUTLERARMSDEN.COM

E INFO@BUTLERARMSDEN.COM  
T 415-674-5554  
F 415-674-5558



1 PROPOSED WEST ELEVATION  
SCALE: 1/4" = 1'-0"

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SCALE: AS NOTED

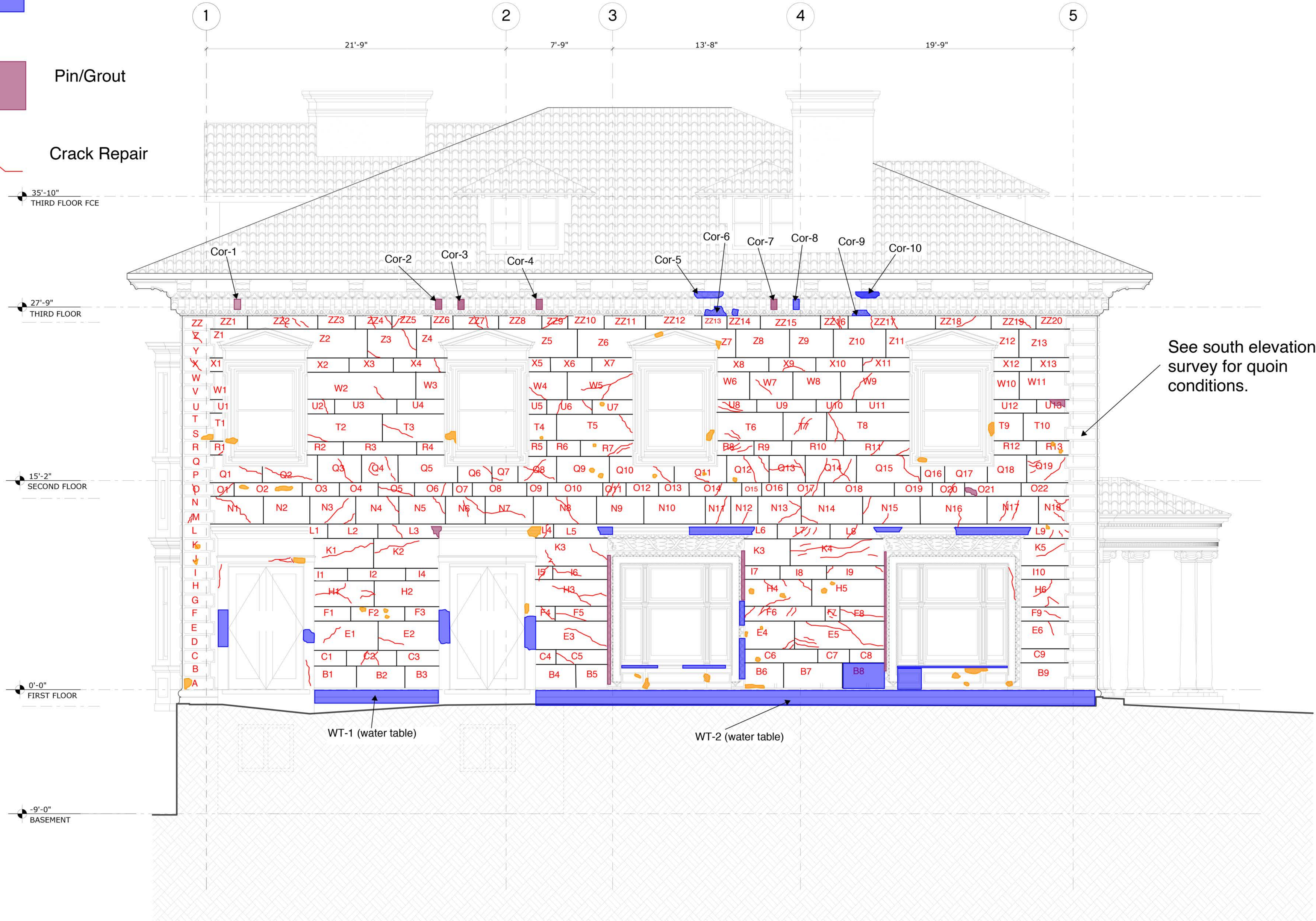
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PROPOSED ELEV.  
WEST

A3.2



- Mortar Repair/Patch
- Dutchman Repair
- Pin/Grout
- Crack Repair



**PHASE 2 PERMIT**

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SCALE:	AS NOTED

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**WEST ELEV.  
SUPPLEMENTAL**

**A3.2.1**

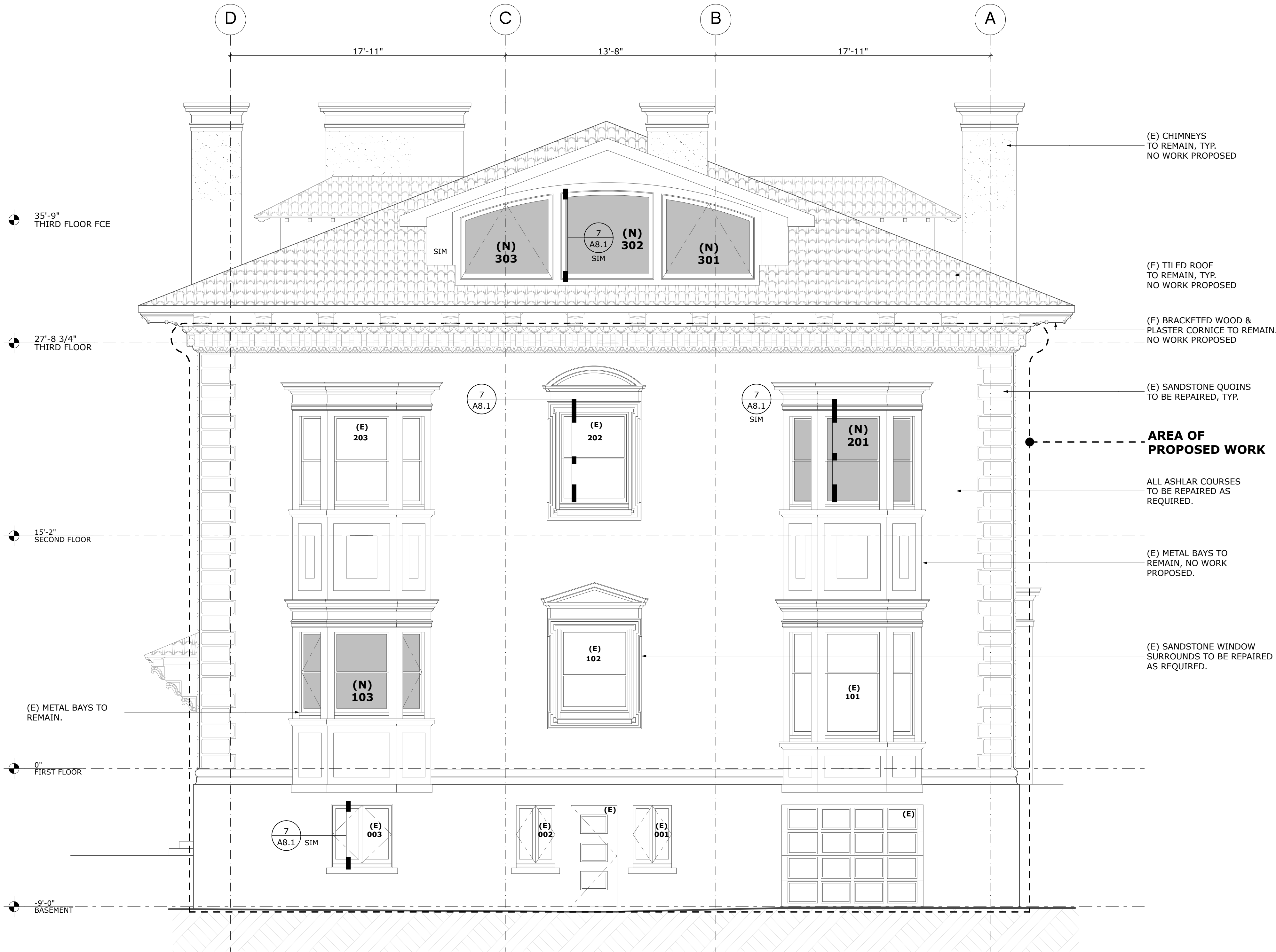


GENERAL STONE REPAIR NOTES	GENERAL PRESERVATION NOTES
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T 415-674-5554  
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1 PROPOSED NORTH ELEVATION  
SCALE: 1/4" = 1'-0"

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PHASE 2 PERMIT

REVISIONS: BY:

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SCALE: AS NOTED

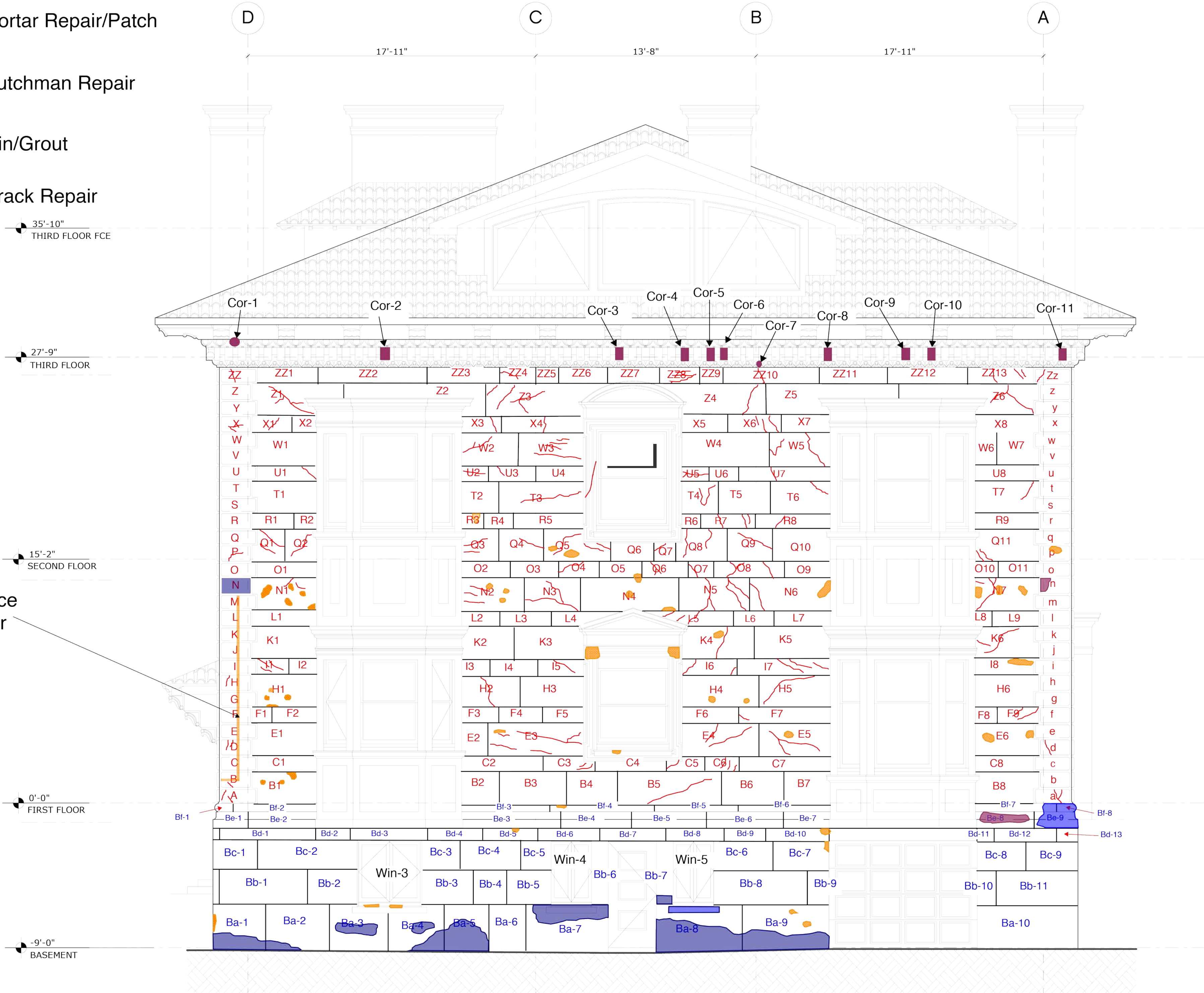
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PROPOSED ELEV.  
NORTH

A3.3

- Mortar Repair/Patch
- Dutchman Repair
- Pin/Grout
- Crack Repair

Remove/Replace  
Previous Repair



1 NORTH ELEVATION STONE SURVEY  
SCALE: 1" = 1'-0"

PHASE 2 PERMIT

REVISIONS:	BY:

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CHECKED:	LB/DS
SCALE:	AS NOTED

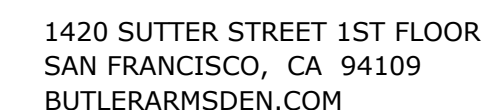
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NORTH ELEV.  
SUPPLEMENTAL



## GENERAL PRESERVATION NOTES

1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
2. ALL WORK ON THE SITE TO BE CONDUCTED IN SUCH A MANNER AS TO PROTECT EXISTING HISTORIC PROPERTIES.
3. ANY HAZARDOUS MATERIALS EXISTING AT EXTERIOR TO BE IDENTIFIED AND DEALT WITH IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.
4. EXISTING OR REMOVED MATERIALS, SUCH AS DOWNED TREES, ETC. THAT ARE REMOVED DURING THE COURSE OF THE WORK SHALL BE CATALOGED AND SAVED FOR RE-USE.
5. CONTRACTOR TO VERIFY BEARING AND NON-BEARING STATUS OF EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.



E INFO@BUTLERARMSDEN.COM  
T 415-674-5554  
F 415-674-5558

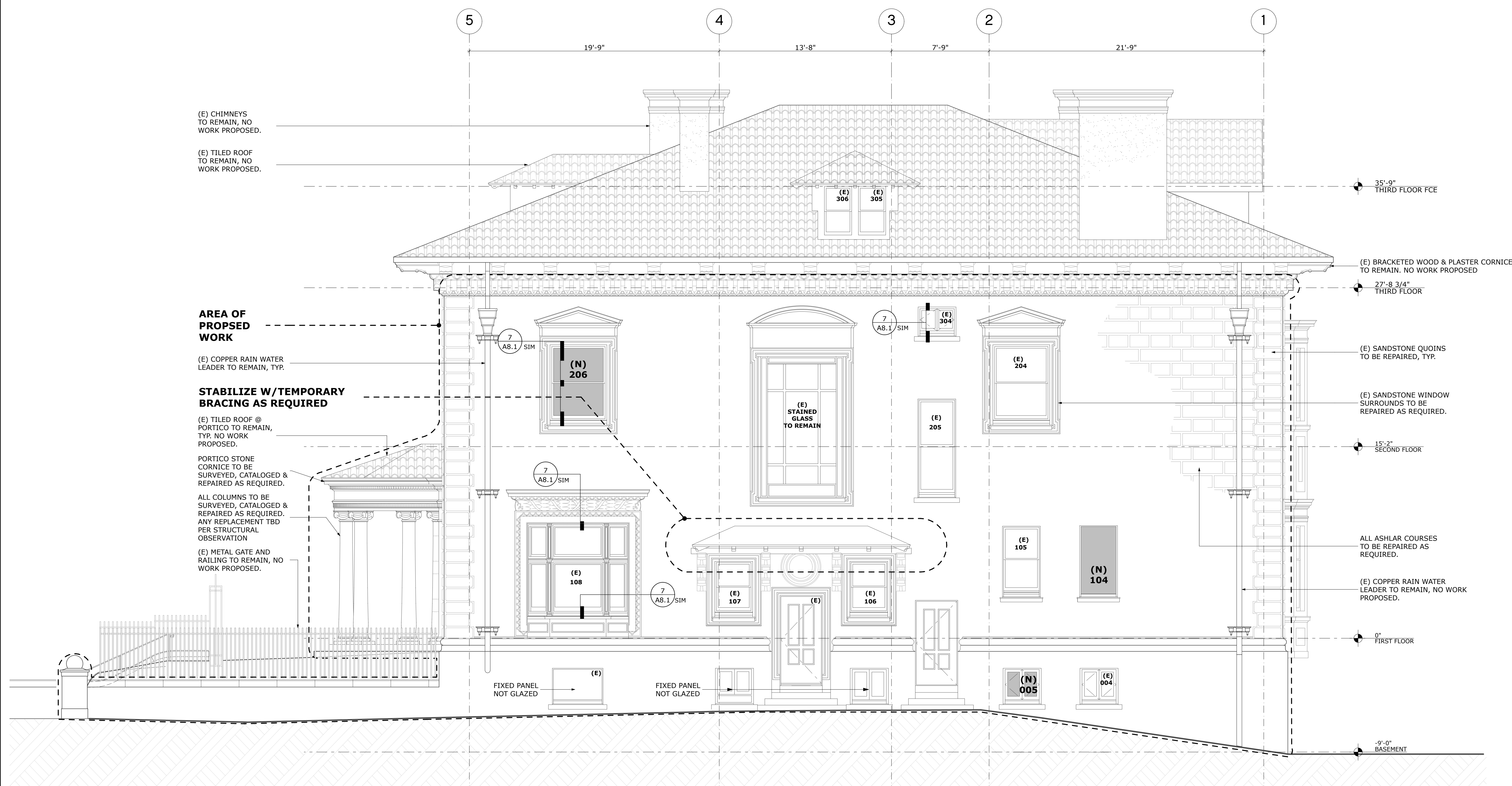
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JOB#:	1702
DATE:	6/27/2018
DRAWN:	DS/MS
CHECKED:	LB/DS
SCALE:	AS NOTED

**DRAFT**  
FOR HPC REVIEW  
8/27/19

PROPOSED ELEV.  
EAST

### A3.4

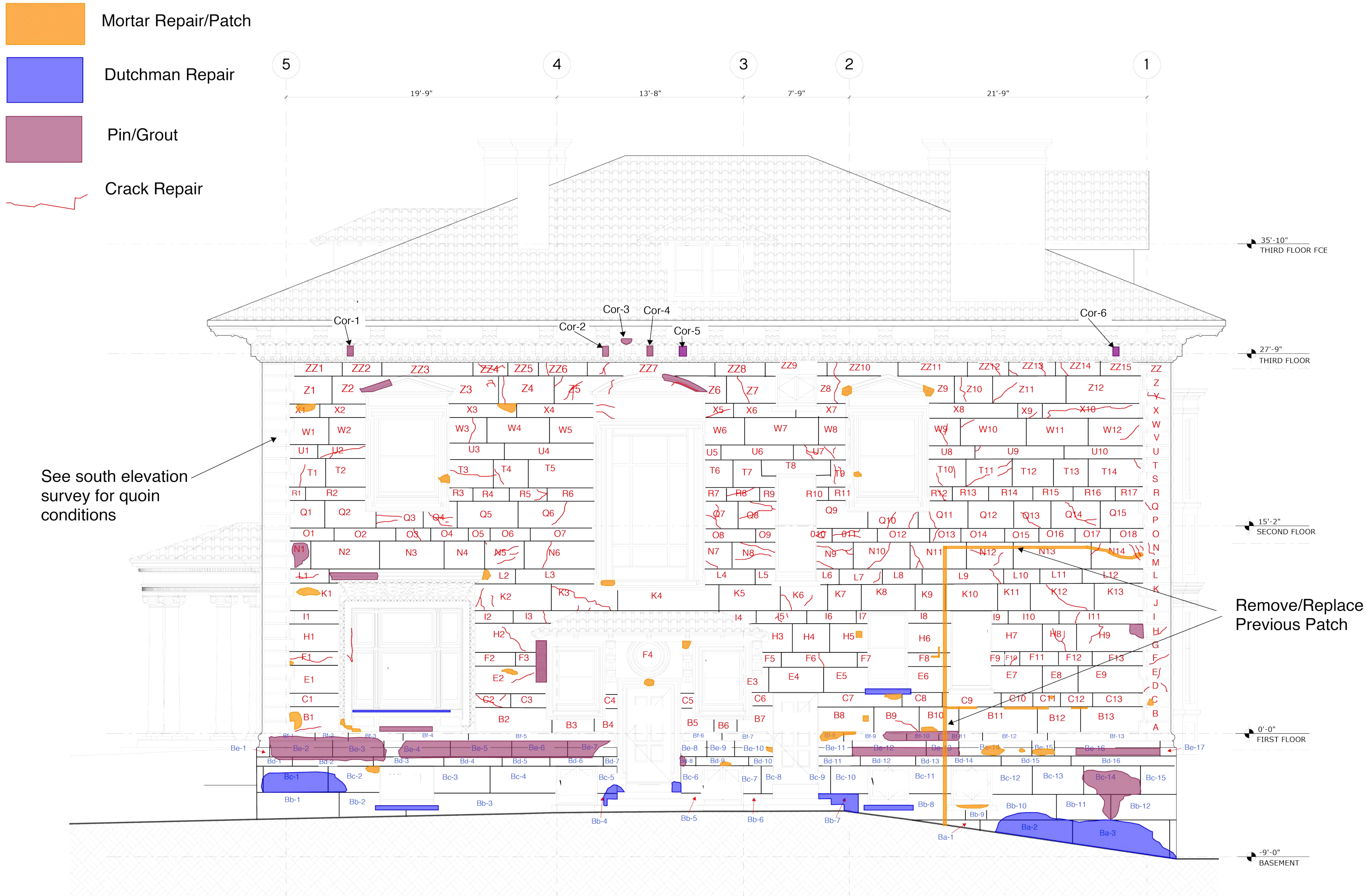


1

### PROPOSED EAST ELEVATION

SCALE: 1/4" = 1'-0"





**1 EAST ELEVATION STONE SURVEY**  
SCALE: 1" = 1'-0"

**PHASE 2 PERMIT**

REVISIONS:	BY:

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SCALE:	AS NOTED

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**EAST ELEV.  
SUPPLEMENTAL**

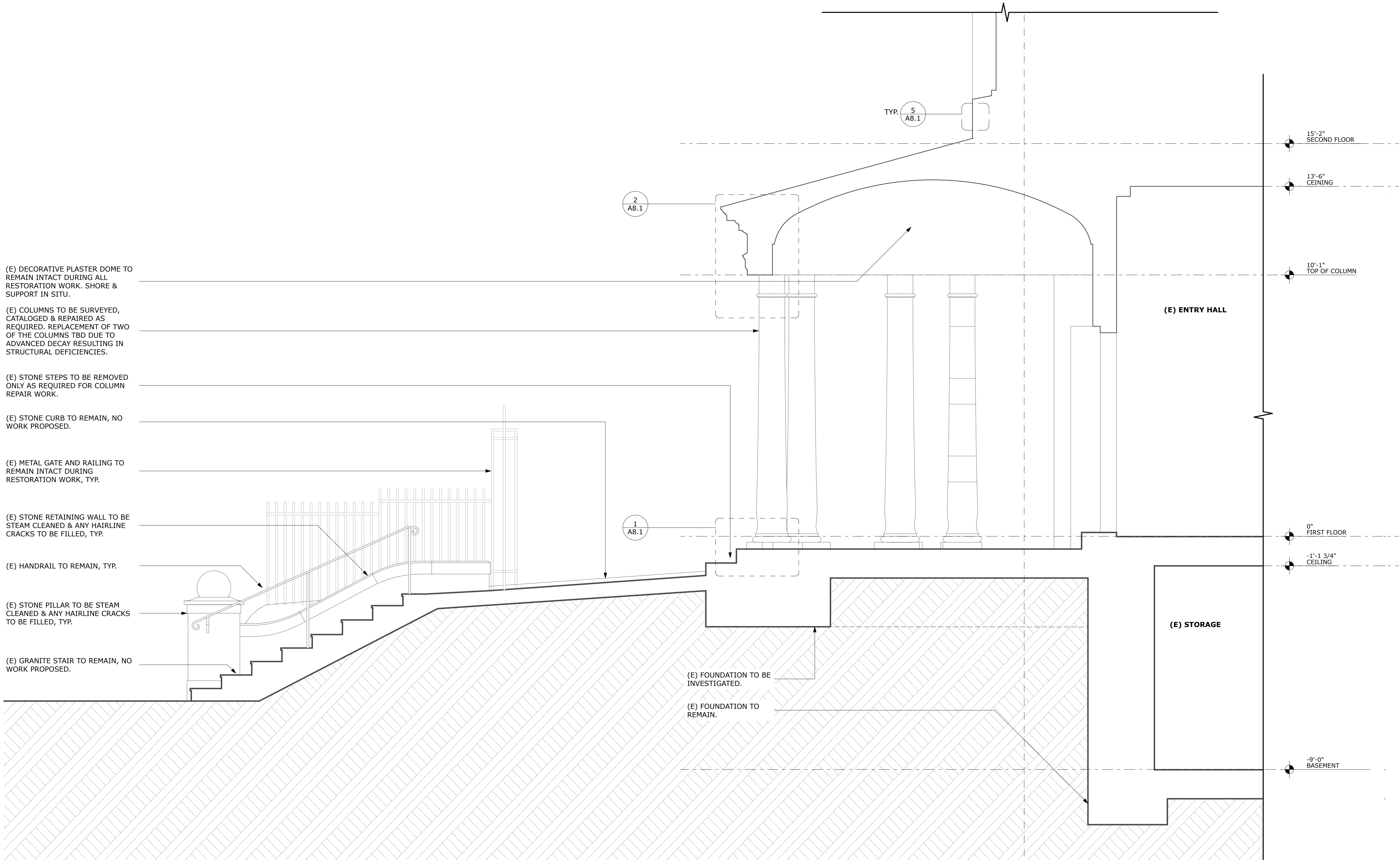


GENERAL STONE REPAIR NOTES	GENERAL PRESERVATION NOTES
1. ANY DELAMINATED STONE PIECES TO BE PINNED TO ADJACENT STABLE STONE. 2. INSTALL DUTCHMANS OF MATCHING STONE IN CERTAIN CASES. 3. ALL PROPOSED STONE TO MATCH EXISTING IN COLOR & FINISH. 4. ALL PROPOSED STONE & STONE WORK TO BE PRESENTED TO PERMITTING AGENCIES AS SAMPLES FOR REVIEW. 5. ALL PROPOSED REPAIR PROCEDURES TO BE PRESENTED TO PERMITTING AGENCIES FOR REVIEW.	1. ANY REPAIRS OR TREATMENTS TO BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES. 2. ALL WORK ON THE SITE TO BE CONDUCTED IN SUCH A MANNER AS TO PROTECT ADJACENT PROPERTY. 3. ANY HAZARDOUS MATERIALS EXISTING AT EXTERIOR TO BE IDENTIFIED AND DEALT WITH IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS. 4. ANY EXISTING FINISHES, HARDWARE, DECORATIVE ELEMENTS, ETC. THAT ARE REMOVED DURING THE COURSE OF THE WORK SHALL BE CATALOGED AND SAVED FOR RE-USE. 5. CONTRACTOR TO VERIFY BEARING AND NON-BEARING STATUS OF EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.

BUTLER ARMSDEN  
ARCHITECTS

1420 SUTTER STREET 1ST FLOOR  
SAN FRANCISCO, CA 94109  
BUTLERARMSDEN.COM

E INFO@BUTLERARMSDEN.COM  
T 415-674-5554  
F 415-674-5558



1 PROPOSED SECTION AT PORTICO  
SCALE: 1/2" = 1'-0"

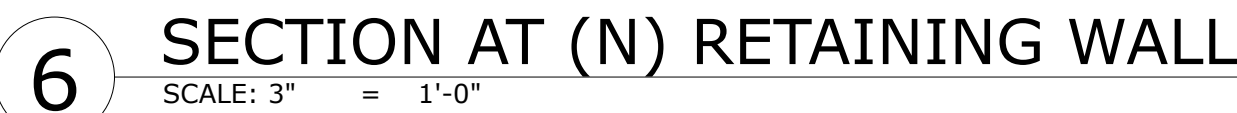
2622 RESIDENCE  
2622 JACKSON ST., SAN FRANCISCO, CA 94115

PHASE 2 PERMIT

REVISIONS:	BY:

JOB#:	1702
DATE:	6/27/2018
DRAWN:	DS/MS
CHECKED:	LB/DS
SCALE:	AS NOTED

**DRAFT**  
FOR HPC REVIEW  
8/20/19  
PROPOSED  
SECTION AT  
PORTICO



**2622 RESIDENCE**  
2622 JACSON ST., SAN FRANCISCO , CA 94115

## PHASE 2 PERMIT

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SCALE:	AS NOTED

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## STONE REPAIR DETAILS