Certificate of Appropriateness Case Report

HEARING DATE: SEPTEMBER 21, 2011

Filing Date: July 26, 2011 Case No.: **2011.0808A**

Project Address:400 Montgomery StreetHistoric Landmark:No. 161 – Kohl BuildingZoning:C-3-O (Downtown Office)

300-S Height and Bulk District

Block/Lot: 0239/009
Applicant: David Wessel

Architectural Resources Group, Inc. Pier 9, The Embarcadero, Suite 107

San Francisco, CA 94111

Staff Contact Pilar LaValley - (415) 575-9084

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Reviewed By Tim Frye – (415) 575-6822

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PROPERTY DESCRIPTION

400 MONTGOMERY STREET, northeast corner of California and Montgomery Streets, Assessor's Block 0239, Lot 009. Designated as City Landmark #161, the former Kohl Building is a Renaissance Revival-style, 11-story building built in 1901, and partially reconstructed in 1907, based on designs by George W. Percy and Willis Polk. It is an early and important example of the Beaux Arts high-rise buildings that came to characterize downtown San Francisco as well as an illustration of early "fireproof" construction in the city. It is located in a C-3-O (Downtown Office) Zoning District and a 300-S Height and Bulk District.

PROJECT DESCRIPTION

The proposed project involves repair and limited replacement of the Colusa sandstone cladding on the Montgomery Street façade of the building. The scope of work includes limited replacement of severely eroded decorative pieces with replica units cast in glass fiber reinforced concrete (GFRC) and installation of weathered sheet metal coping on sky-facing stone surfaces at water tables and sills. Replica units cast in GFRC are proposed as replacement of the decorative "lion's head" belt course between third and fourth floors and for deteriorated window sills. Other repair and restoration work that has been undertaken includes repointing of masonry joints, dutchmen repair of stone units, patching of small areas of material loss, re-tooling of eroded decorative elements, and repainting existing wood windows.

OTHER ACTIONS REQUIRED

Proposed work requires a Building Permit.

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

Reception: 415.558.6378

Fax: 415.558.6409

Planning Information: 415.558.6377

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

A Certificate of Appropriateness is required for any construction, alteration, removal, or demolition of a designated Landmark for which a City permit is required. In appraising a proposal for a Certificate of Appropriateness, the Historic Preservation Commission should consider the factors of architectural style, design, arrangement, texture, materials, color, and other pertinent factors. Section 1006.7 of the Planning Code provides in relevant part as follows:

The proposed work shall be appropriate for and consistent with the effectuation of the purposes of Article 10.

For applications pertaining to landmark sites, the proposed work shall preserve, enhance or restore, and shall not damage or destroy, the exterior architectural features of the landmark and, where specified in the designating ordinance pursuant to Section 1004(c), its major interior architectural features. The proposed work shall not adversely affect the special character or special historical, architectural, or aesthetic interest or value of the landmark and its site, as viewed both in themselves and in their setting, nor of the historic district in applicable cases.

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 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.

The property will continue in its commercial office use.

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 architectural character of the subject building will be maintained by using repair methods that are appropriate and that minimize the loss of additional historic fabric and through the installation of replacement features using a compatible substitute material. The majority of existing Colosa sandstone cladding is proposed to be retained and repaired. In select locations – panel below lion's head belt course and window surround molding – deteriorated sandstone will be removed and replaced in-kind with new masonry cut to match existing. As proposed, the existing lion's head belt course and window sills will be replaced with glass fiber reinforced concrete (GFRC) units matching as closely as possible the overall appearance, finish, and visual characteristics of the original material.

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

The majority of existing Colusa sandstone cladding will be retained and repaired. To the extent possible, severely deteriorated features will be replaced in-kind utilizing material from the same quarry as original cladding. Features that are beyond repair, and that are highly carved, are proposed to be replaced with glass fiber reinforced concrete (GFRC) units that will be based on molds of the original features and will be finished to match as closely as possible the overall appearance, finish, and visual characteristics of the original material. Overall, character-defining features of the landmark will be preserved.

Standard 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.

The majority of existing Colusa sandstone cladding will be retained and repaired. Where features are severely deteriorated and repair is not possible, such features will be replaced in-kind utilizing material from the same quarry as original cladding. Features that are beyond repair, and that are highly carved, are proposed to be replaced with glass fiber reinforced concrete (GFRC) units that will be based on molds of the original features and will be finished to match as closely as possible the overall appearance, finish, and visual characteristics of the original material. The Department believes that the proposal is consistent with Standard 6 and the National Park Service "Preservation Brief 16: The Use of Substitute Materials on Historic Building Exteriors" as it focuses on repair and in-kind replacement with very limited replacement with compatible substitute materials that match the historic fabric in terms of location, detail, design, scale, plane, texture, and finish.

PUBLIC/NEIGHBORHOOD INPUT

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

ISSUES & OTHER CONSIDERATIONS

The Project Sponsor applied for a building permit (Application No. 2011.07.12.9994) for the subject project on July 12, 2011. On July 29, 2011, the Planning Department approved a revised permit application limited to sandstone repair, repointing of mortar joints, dutchmen repairs, stabilization of existing deteriorated materials, and in-kind replacement of sandstone features due to determination that the proposed work was in conformance with the *Secretary of Interior's Standards for Rehabilitation* and that the existing deteriorated sandstone cladding posed an imminent hazard to life safety. The Project Sponsor was advised to apply for a Certificate of Appropriateness for the proposed scope of work for replacement of original materials with substitute materials.

STAFF ANAYLSIS

Based on the requirements of Article 10 and the Secretary of Interior's Standards, staff has determined that the proposed work will not adversely affect the subject landmark site.

Staff finds that the historic character of the property will be retained and preserved by the repair and inkind replacement of deteriorated sandstone cladding on the Montgomery Street façade. The details and specifications provided by the Project Sponsor regarding sandstone repair and in-kind replacement appear to be consistent with the standard methods for such repair.

The Department understands the challenges outlined by the Project Sponsor regarding the technical and economic feasibility of using carved sandstone as opposed to GFRC. Evaluation of the project indicates that replacement of the lion's head belt course and window sills with a compatible substitute material, such as GFRC, is appropriate as the new material will closely match the historic fabric in terms of, location, detail, design, scale, plane, texture, and finish. The National Park Service "Preservation Brief 16: The Use of Substitute Materials on Historic Building Exteriors" as well as past review by the HPC has indicated that in certain situations utilization of compatible substitute materials is an acceptable approach.

Staff finds that the project will retain and repair distinctive features of the property and shall only remove historic features that are deteriorated beyond repair. Where such features are removed, replacement units will match the original in design, color, texture, and, where possible, materials.

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 for Rehabilitation*.

PLANNING DEPARTMENT RECOMMENDATION

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

ATTACHMENTS

Draft Motion
Parcel Map
Sanborn Map
CEQA Categorical Exemption Determination
Plans
Specifications
Photographs

PL: G:\DOCUMENTS\400 Montgomery Street\C of A Case Report.doc

Historic Preservation Commission Draft Motion

HEARING DATE: SEPTEMBER 21, 2011

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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 ON LOT 009 IN ASSESSOR'S BLOCK 0239, WITHIN A C-3-O (DOWTOWN OFFICE) ZONING DISTRICT AND A 300-S HEIGHT AND BULK DISTRICT.

PREAMBLE

WHEREAS, on July 26, 2011, David Wessel of Architectural Resources Group Inc. ("Project Sponsor") filed an application with the San Francisco Planning Department ("Department") for a Certificate of Appropriateness to repair, restore, and replace in select locations the Colusa sandstone cladding on the Montgomery Street façade of the building located on Lot 009 in Assessor's Block 0239. The work includes limited replacement of severely eroded decorative pieces with replica units cast in glass fiber reinforced concrete (GFRC), installation of weathered sheet metal coping on sky-facing stone surfaces at water tables and sills, repointing of masonry joints, dutchmen repair and limited in-kind replacement of sandstone units, patching of small areas of material loss, re-tooling of eroded decorative elements, and repainting existing wood windows. The use of substitute materials (GFRC) shall be limited to the carved lion's head belt course and window sills. New GFRC units will be cast to match as closely as possible the overall appearance, finish, and visual characteristics of the original material. All other replacement and dutchmen repairs – also limited in scope – shall be in-kind, utilizing sandstone from the same quarry as original material.

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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 21, 2011, the Commission conducted a duly noticed public hearing on the current project, Case No. 2011.0808A ("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 dated may 25, 2011 and labeled Exhibit A on file in the docket for Case No. 2011.0808A based on the following findings:

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 Historical Preservation Commission has determined that the proposed work is compatible with the character of the landmark as described in the designation report.

- Historic cladding materials would be retained in situ wherever possible and repaired. Severely deteriorated materials would be replaced in-kind, or with compatible substitute materials (cast glass fiber reinforced concrete (GFRC)) matching as closely as possible the overall appearance, finish, and visual characteristics of the original material. All other replacement and dutchmen repairs shall be in-kind, utilizing sandstone from the same quarry as original material. A conditions survey of the buildings has been conducted to inform the decisions regarding retention and repair or replacement of deteriorated elements.
- The proposed project meets the following 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.

Standard 2.

The historic character of a property shall be retained and preserved. The removal of historic materials

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PLANNING DEPARTMENT

or alteration of features and spaces that characterize a property shall be avoided.

Standard 5.

Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

Standard 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.

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.

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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 former Kohl Building (Landmark #161) 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 restoration of a commercial office property and will not have any impact 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 landmark 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 ten units at the property are uninhabitable.

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. It will provide sufficient off-street parking for the proposed units.

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CASE NO 2011.0808A 400 Montgomery Street

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 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 is improved by the proposed work. The work will eliminate unsafe conditions at the site and all construction 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 **GRANTS a Certificate of Appropriateness** for the property located at Lot 009 in Assessor's Block 0239 for proposed work in conformance with the architectural plans dated May 25, 2011 and labeled Exhibit A on file in the docket for Case No. 2011.0808A.

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 21, 2011

Linda D. Avery Commission Secretary

AYES: X

NAYS: X

ABSENT: X

ADOPTED: September 21, 2011

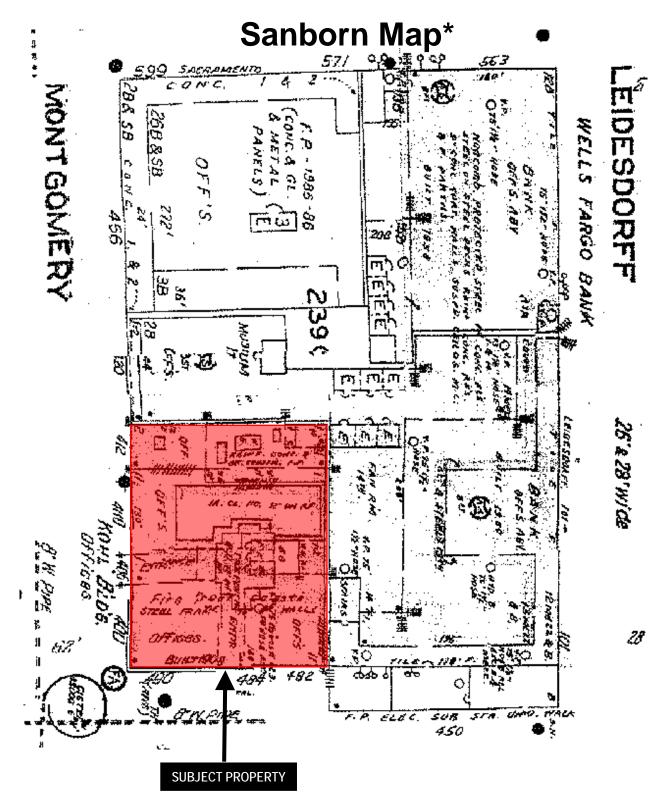
Parcel Map

SACRAMENTO





Certificate of Appropriateness Hearing Case Number 2011.0808A 400 Montgomery Street



*The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.





DEPARTMENT

CASE NO.

2011.080

CEQA Categorical Exemption Determination

Property Information

	normation				
PROJECT ADDRE	ESS			BLOCK/LOT(S)	
400	MONTGOR	MERY	ST.	02391	009
	PERMIT NO.			PLANS DATED	
8 A		***************************************	· · · · · · · · · · · · · · · · · · ·	5/2	15/11

STEP 1 EXEMPTION CLASS

Class 1: Existing Facilities
Interior and exterior alterations; additions under 10,000 sq.ft.; change of use if principally permitted or with a CU.

Class 3: New Construction

Up to three (3) single family residences; six (6) dwelling units in one building; commercial/office structures under 10,000 sq.ft.; accessory structures; utility extensions.

NOTE:

If neither class applies, an *Environmental Evaluation Application* is required.

STEP 2 CEQA IMPACTS (To be completed by Project Planner)

If condition applies, please initial.

Transportation: Does the project create six (6) or more net new parking spaces or residential units? Does the project have the potential to adversely affect transit, pedestrian and/or bicycle safety (hazards) or the adequacy of nearby transit, pedestrian and/or bicycle facilities?

Air Quality: Would the project add new sensitive receptors (specifically, schools, colleges, universities, day care facilities, hospitals, residential dwelling, and senior-care facilities)?

Hazardous Materials: Would the project involve 1) change of use (including tenant improvements) and/or 2) soil disturbance; on a site with a former gas station, auto repair, dry cleaners, or heavy manufacturing use, or on a site with underground storage tanks?

Phase I Environmental Site Assessment required for CEQA clearance (E.P. initials required)

Soil Disturbance/Modification: Would the project result in the soil disturbance/modification greater than two (2) feet below grade in an archeological sensitive area or eight (8) feet in non-archeological sensitive areas?

Refer to: EP ArcMap > CEQA CatEx Determination Layers > Archeological Sensitive Areas

Noise: Does the project include new noise-sensitive receptors (schools, colleges, universities, day care facilities, hospitals, residential dwelling, and senior-care facilities) fronting roadways located in the noise mitigation area?

Refer to: EPArcMap > CEQA CatEx Determination Layers > Noise Mitigation Area

Subdivision/Lot-Line Adjustment: Does the project site involve a subdivision or lot-line adjustment on a lot with a slope of 20% or more?

Refer to: EP ArcMap > CEQA CatEx Determination Layers > Topography

NOTE:

If ANY box is initialed in STEP 2, Environmental Planner MUST review & initial below. (If not, go to STEP 3)

Further Environmental Review Required.

Based on the information provided, the project requires an *Environmental Evaluation Application* to be submitted.

GO TO STEP 6

Project Can Proceed With Categorical Exemption Review.

The project has been reviewed by the Environmental Planner and can proceed with categorical exemption review.

GO TO STEP 3

STEP 3 PROPERTY STATUS - HISTORICAL RESOURCE Property is one of the following: (Refer to: San Francisco Property Information Map) Category A: Known Historical Resource GO TO STEP 5 Category B: Potential Historical Resource (over 50 years of age) GO TO STEP 4 Category C: Not a Historical Resource or Not Age Eligible (under 50 years of age) GO TO STEP 6 STEP 4 PROPOSED WORK CHECKLIST (To be completed by ALL Planners) If condition applies, please initial. 1. Change of Use and New Construction (tenant improvments not included). NOTE: 2. Interior alterations/interior tenant improvments. Note: Publicly-accessible Project is not spaces (i.e. lobby, auditorium, or sanctuary) require preservation planner listed: review. GO TO STEP 5 3. Regular maintenance and repair to correct or repair deterioration, decay, or damage to the building. 4. Window replacement that meets the Department's Window Replacement Project does not Standards. conform to the scopes of work: 5. Garage opening that meets the Guidelines for Adding Garages and Curb Cuts GO TO STEP 5 (not including storefront window alterations). 6. Deck, terrace construction, or replacement fences that are not visible from any immediately adjacent public right-of-way. Project involves 4 or more work 7. Mechanical equipment installation not visible from any immediately adjacent descriptions: public right-of-way. GO TO STEP 5 8. Dormer installation that meets the requirements for exemption from public notification under Zoning Administrator Bulletin: Dormer Windows. Project involves 9. Additions that are not visible from any immediately adjacent public right-ofless than 4 work way for 150' in each direction; does not extend vertically beyond the floor level descriptions: of the top story of the structure or is only a single story in height; does not have a footprint that is more than 50% larger than that of the original building; GO TO STEP 6 and does not cause the removal of architectural significant roofing features. CEQA IMPACTS - ADVANCED HISTORICAL REVIEW (To be completed by Preservation Planner) If condition applies, please initial. 1. Project involves a Known Historical Resource (CEQA Category A) as determined by Step 3 and conforms entirely to Scope of Work Descriptions listed in Step 4. (Please initial scopes of work in STEP 4 that apply.) 2. Interior alterations to publicly-accessible spaces.

	3. Window replacement of original/historic windows that are not "in-kind" but are is consistent with existing historic character. 4. Façade/storefront alterations that do not remove, alter, or obscure character-defining features.	NOTE: If ANY box is initialed in STEP 5, Preservation Planner MUST review & initial below.
	Raising the building in a manner that does not remove, alter, or obscure character-defining features.	Further Environmental Review Required.
	Restoration based upon documented evidence of a building's historic condition, such as historic photographs, plans, physical evidence, or similar buildings.	Based on the information provided, the project requires an <i>Environmental Evaluation Application</i> to be submitted.
	7. Addition(s) , including mechanical equipment that are minimally visible from a public right of way and meets the Secretary of the Interior's Standards for Rehabilitation.	GO TO STEP 6
mpl	8. Other work consistent with the Secretary of the Interior Standards for the Treatment of Historic Properties Limited replacement in-Kind and with Substitute Specify: Compitable Metals of Other exated Sends fone. Cladding.	Project Can Proceed With Categorical Exemption Review. The project has been reviewed by the Preservation Planner and can proceed with categorical exemption review.
*	Reclassification of property status to Category C	GO TO STEP 6 MPL
William China	Specify:	
	* Requires initial by Senior Preservation Planner Preservation Coordinator	
STEP 6	*Requires initial by Senior Preservation Planner / Preservation Coordinator CATEGORICAL EXEMPTION DETERMINATION (To be Further Environmental Review Required. Proposed Project does not meet scopes of work in either:	completed by Project Planner)
STEP 6	* Requires initial by Senior Preservation Planner Preservation Coordinator CATEGORICAL EXEMPTION DETERMINATION (To be Further Environmental Review Required. Proposed Project does not meet scopes of work in either: (check all that apply)	
STEP 6	*Requires initial by Senior Preservation Planner Preservation Coordinator CATEGORICAL EXEMPTION DETERMINATION (To be Further Environmental Review Required. Proposed Project does not meet scopes of work in either: (check all that apply) Step 2 (CEQA Impacts) or	STOP! Must file Environmental
STEP 6	* Requires initial by Senior Preservation Planner Preservation Coordinator CATEGORICAL EXEMPTION DETERMINATION (To be Further Environmental Review Required. Proposed Project does not meet scopes of work in either: (check all that apply)	STOP!
STEP 6	*Requires initial by Senior Preservation Planner Preservation Coordinator CATEGORICAL EXEMPTION DETERMINATION (To be Further Environmental Review Required. Proposed Project does not meet scopes of work in either: (check all that apply) Step 2 (CEQA Impacts) or Step 5 (Advanced Historical Review)	STOP! Must file Environmental Evaluation Application.

Once signed and dated, this document constitutes a categorical exemption pursuant to CEQA Guidelines and Chapter 31 of the Administrative Code.

LEGENDS AND SYMBOLS CENTER LINE AREA ENLARGED → PLAN NUMBER - REVISION NUMBER AREA REVISED

ABBREVIATIONS

A		F			
&	AND	F.D.	FLOOR DRAIN	P.T.	PRESSURE TREATED
@	AT	FDN.	FOUNDATION	P.T.D.F.	PRESSURE TREATED
A.B.	ANCHOR-BOLT	FIN.	FINISH	_	DOUGLAS FIR
A/C	AIR-CONDITIONING	FL.	FLOOR	R	DELIONE O DENIOTAL
ACOUS.	ACOUSTICAL	FLASH.	FLASHING	R/R	REMOVE & REINSTAL
A.D. ADJ.	AREA DRAIN ADJUSTABLE	F.O.C. F.O.F.	FACE OF CONCRETE FACE OF FINISH	(R) R.	REMOVE RISER
AGGR.	AGGREGATE	F.O.S	FACE OF STUDS	R&S	ROD & SEALANT
AL.	ALUMINUM	F.S.	FULL SIZE	RAD.	RADIUS
ALT.	ALTERNATE	FT.	FOOT OR FEET	R.D.	ROOF DRAIN
ANOD.	ANODIZED	FTG.	FOOTING	REF.	REFERENCE
APPROX.	APPROXIMATE	FURR.	FURRING	REINF.	REINFORCED
ARCH.	ARCHITECTURAL	G		R.S.P.	REINFORCED STEEL
ASPH.	ASPHALT	G.A.	GAUGE		PIPE
В		GALV.	GALVANIZED	REQ.	REQUIRED
B.D.	BOARD	G.L.	GLASS	RESIL.	RESILIENT
BITUM.	BITUMINOUS	GND.	GROUND	RM.	ROOM
B.F.	BASE FLASHING	GR.	GRADE	R.O.	ROUGH OPENING
BLDG. BLK.	BUILDING BLOCK	GSM.	GALVANIZED SHEET METAL	R.W.L.	RAIN WATER LEADER
BLKG.	BLOCKING	GWB	GYPSUM WALL BOARD	S .	SOUTH
BLW.	BELOW	GYP.	GYPSUM	S.A.M.	SELF ADHERED
ВМ.	BEAM	H	0 11 30W	J.7 (.IVI.	MEMBRANE
BOT.	BOTTOM	п Н.В.	HOSE BIBB	S.C.	SOLID CORE
BSMT.	BASEMENT	H.C.	HOLLOW CORE	SCHED.	SCHEDULE
BTWN.	BETWEEN	HDG.	HOT DIPPED GALVANIZED	SECT.	SECTION
B.U.R.	BUILT-UP ROOFING	HGT.	HEIGHT	S.G.D.	SLIDING GLASS DOOF
C		H.M.	HOLLOW METAL	SH.	SHELF
C.B.	CATCH BASIN	HORIZ.	HORIZONTAL	SHT.	SHEET
СЕМ.	CEMENT	H.P.	HIGH POINT	SHTG.	SHEATHING
CFL.	COUNTERFLASHING	HR.	HOUR	SIM.	SIMILAR
C.I.	CASTIRON	H.W.	HOT WATER	SQ.	SQUARE
C.I.P	CAST-IN-PLACE	I		S.S.	STAINLESS STEEL
C.J.	CONTROL JOINT	I.D.	INSIDE DIAMETER	STA.	STATION
CLG.	CEILING	INT.	INTERIOR	STD.	STANDARD
CLKG.	CAULKING	INV.	INVERT	STL.	STEEL
CLR. CMU.	CLEAR CONCRETE MAGONIBY	J	IOINT	STOR.	STORAGE
CIVIU.	CONCRETE MASONRY UNIT	JT.	JOINT	SYM.	STRUCTURAL SYMMETRICAL
CNTR.	COUNTER	'L'	ANGLE	T	STIVIIVIETRICAL
COL.	COLUMN	L.B.	LAG BOLT	T.C.	TOP OF CURB
COMP.	COMPOSITION	L.P.	LOW POINT	TEL.	TELEPHONE
CONC.	CONCRETE	LT.	LIGHT	T. & G.	TONGUE & GROOVE
CONT.	CONTINUOUS	LVR.	LOUVER	THK.	THICK
CORR.	CORRIDOR	L.W.	LIGHTWEIGHT	THRESH.	THRESHOLD
CTR.	CENTER	M		T.P.	TOP OF PAVEMENT
CTSK.	COUNTERSUNK	MAX.	MAXIMUM	T.S.	TUBE STEEL
C/W	COMPLETE WITH	М.В.	MODIFIED BITUMEN	T.W.	TOP OF WALL
D		МЕСН.	MECHANICAL	TYP.	TYPICAL
DBL.	DOUBLE	МЕМВ.	MEMBRANE	U	
DEPT.	DEPARTMENT	MET.	METAL	UNF.	UNFINISHED
D.D.	DECK DRAIN	MFR.	MANUFACTURER	U.O.N.	UNLESS OTHERWISE
D.F.	DOUGLAS FUR	MIN.	MINIMUM	7.7	NOTED
D.F.T.	DRY FILM THICKNESS	MISC.	MISCELLANEOUS	V	VEDTICAL
DIA.	DIAMETER	MTD.	MOUNTED	VERT.	VERTICAL
DIA <i>G</i> .	DIAGONAL DIMENSION	MTL.	MATERIAL	VEST.	VESTIBULE VERIFY IN FIELD
DIM. DN.	DOWN	N	MULLION	V.I.F. V.S.	VENT STACK
D.P.	DAMPPROOFING	N.	NORTH	W	YLINI JIACK
D.r . DR.	DOOR	(N)	NEW	W.	WEST
DS.	DOWNSPOUT	N.I.C.	NOT IN CONTRACT	W/	WITH
D.S.P.	DRY STANDPIPE	NO. OR #	NUMBER	WD.	WOOD
DTL.	DETAIL	NOM.	NOMINAL	WIN.	WINDOW
DWG.	DRAWING	N.T.S.	NOT TO SCALE	W/O	WITHOUT
E		0		W.O.	WHERE OCCURS
E.	EAST	0/	OVER	WP.	WATERPROOP
(E)	EXISTING	O.A.	OVERALL	WT.	WEIGHT
E.A.	EACH	O.C.	ON CENTER	W.W.F.	WELDED WIRE FABRI
E.B.	EXPANSION BOLT	O.D.	OUTSIDE DIAMETER		
E.J.	EXPANSION JOINT	O.F.	OVERFLOW		
ELAS.	ELASTOMERIC	O.F.D.	OVERFLOW DRAIN		
ELEV.	ELEVATION	OPNG.	OPENING		
EXCL.	ENCLOSURE	OPP.	OPPOSITE DUOTE OF L		
E.Q.	EQUAL	P.C.	PHOTO CELL		
EQPT.	EQUIPMENT	P.E.N.	PERIMETER EDGE		
EXP.	EXPANSION	n	NAILING		
EXPO.	EXPOSED EXTERIOR	P	DI ATT		
EXT.	EXTERIOR	P.L.	PLATE PLAGTER		
		PLAS. PLYWD.	PLASTER PLYWOOD		
		PLYWD. PT.	PLYWOOD POINT		
		1 1.	I UIINI		
		1		1	

PRODUCTS SPECIFICATION

1. STRIPPING AND CLEANING MATERIALS

A. HOT WATER FOR CLEANING: CLEAN POTABLE WATER

2. MORTAR MATERIALS

A. REPOINTING MORTAR SHALL BE A PRE-MIXED, PRE-COLORED CEMENT LIME BASED MIXTURE FORMULATED TO COMPLY WITH THE REQUIREMENTS OF ASTM C-270 TYPE N MORTAR. 1. SPEC-JOINT 46, AS MANUFACTURED BY EDISON COATINGS, INC., PLAINVILLE, CT. PHONE (800)

3 PATCHING MATERIAL

A. PATCHING MATERIAL SHALL BE A PREMIXED, CEMENTITIOUS MATERIAL WITH ACRYLIC LATEX-MODIFIER FORMULATED TO MATCH THE COLOR AND TEXTURE OF THE EXISTING SANDSTONE. MATERIAL MUST BE VAPOR PERMEABLE, FROST AND SALT RESISTANT, SHALL DEVELOP DIRECT TENSILE BOND STRENGTH OF 200 PSI MINIMUM, SHALL EXHIBIT LESS THAN 0.06% DRYING SHRINKAGE, AND SHALL HAVE A LINEAR COEFFICIENT OF THERMAL EXPANSION OF 0.000005 TO 0.000008 INCHES/INCH PER DEGREE FAHRENHEIT. MATERIAL SHALL BE COMPATIBLE WITH SUBSTRATE, INCLUDING BUT NOT LIMITED TO, POROSITY, TENSILE, AND COMPRESSIVE STRENGTH. MODULUS OF ELASTICITY SHALL BE 50,000 TO 100,000 PSI. NON-LATEX MORTARS SHALL BE UNACCEPTABLE.

1. "CUSTOM SYSTEM 45" BY EDISON COATINGS, INC., PLAINVILLE, CT (800) 697-8055. 2. THIN-SECTION GLAZE-SPALL REPAIR AND SURFACE PROFILING OF DEEP REPAIRS "THIN FILL 55" BY EDISON COATING, INC.

4. REINFORCING MATERIALS

A. PINS/THREADED STAINLESS STEEL: TYPE AND SIZE ARE SPECIFIED HEREIN AND AS INDICATED ON THE CONTRACT DRAWINGS, IF NOT INDICATED, AS PER PATCHING MATERIALS MANUFACTURER'S RECOMMENDATION. ANCHORS AND DOWELS SHALL BE 12" MINIMUM AND BE FABRICATED FROM ANSI TYPE 302/304 STAINLESS STEEL.

B. MECHANICAL ANCHORS AND DOWELS (FOR DEEP REPAIRS AND OVERHANGING REPAIRS): STAINLESS STEEL THREADED ROD (ASTM F-593) WITH A DIAMETER AS INDICATED ON CONTRACT DRAWINGS, BENT AND CUT TO LENGTHS REQUIRED TO ACHIEVE EMBEDMENTS SHOWN ON CONTRACT DRAWINGS. CUT END OF ROD SQUARE.

C. ADHESIVE: ADHESIVE SHALL BE A TWO COMPONENT, FLEXIBILIZED EPOXY GEL, WITH MINIMUM 4% ELONGATION, 300 PSI DIRECT TENSILE BOND STRENGTH, 10,000 PSI TENSILE STRENGTH. PRODUCT SHALL BE APPLICABLE TO METALS, MASONRY, CONCRETE AND OTHER SUBSTRATES AS REQUIRED, AND SHALL BE APPROPRIATE FOR USE AT AMBIENT TEMPERATURE FROM ZERO TO 100 DEGREES FAHRENHEIT

1. "FLEXI-WELD 520T", AS MANUFACTURED BY EDISON COATINGS, INC., PLAINVILLE, CT (800) 697-8055

5. SHEET METAL

A. FREEDOM GRAY COATED COPPER AS MANUFACTURED BY REVERE CONFORMING TO ASTM B 370 FREEDOM GRAY IS COPPER COATED WITH AN ALLOY CONSISTING WITH A ZINC/TIN ALLOY THAT IS APPROXIMATELY 0.5 MILS THICK. COMPOSITION OF THE ALLOY SHALL BE APPROXIMATELY 50% ZINC AND 50% TIN WITH TRACE ELEMENTS CONTROLLED FOR DURABILITY, CORROSION RESISTANCE AND COLOR. THE ZINC/TIN ALLOY SHALL BE APPLIED BY THE HOT DIP PROCESS. ALL ZINC/TIN ALLOY COATED COPPER SHALL HAVE TEMPORARY, DEGRADABLE PRE-WEATHERED COATING TO MINIMIZE WATER STAINS DURING TRANSIT AND STORAGE AND PROVIDE INITIAL WEATHERED APPEARANCE, OR APPROVED EQUAL.

B. SOLDER: WHERE USED ON ZINC/TIN ALLOY COATED COPPER, SOLDER SHALL CONFORM TO ASTM SPECIFICATION B32 AND SHALL BE PURE TIN OR LEAD FREE, HIGH HIGH-TIN.

6. SEALANT

A. DOW CORNING 756 ONE-PART SILICONE SEALANT. TO BE INSTALLED AFTER THE WINDOW FRAMES HAVE BEEN PAINTED.

400 MONTGOMERY STREET SANDSTONE FACADE RESTORATION

400 MONTGOMERY ST. SAN FRANCISCO, CA 94104

SCOPE OF WORK

I. GENERAL SCOPE OF WORK

- 1. SPALLED AND EXFOLIATED STONE IN FIELD OF WALL:
- A. CUT TO SQUARE SPALLED AND EXFOLIATED STONE TO EXPOSE SOUND MATERIAL AND IMPLEMENT A DUTCHMAN REPAIR WITH NEW COLUSA SANDSTONE. PIN PER SCHEDULE.

2. REPOINTING:

A. ROUT OUT TO DEPTH OF 1-1/2" CRACKED AND DETERIORATED GROUT JOINT. REPOINT IN MULTIPLE LIFTS. ALLOW 100% REPOINTING OF ALL JOINTS.

II. AREA SPECIFIC SCOPE OF WORK

1. FOURTH FLOOR LION HEADS AND SHELF WATER TABLE:

- A. REMOVE DETERIORATED STONE BAND BELOW LION HEADS BY SLICING BACK 2" TO BOTTOM OF CORNICE. REPLACE WITH NEW SAND STONE CARVED TO MATCH EXISTING. PIN IN ACCORDANCE WITH SCHEDULE.
- B. ALL ADDITIONAL PATCHING REQUIRED WILL ALSO BE ANCHORED USING STAINLESS STEEL ALL THREAD AND STRUCTURAL EPOXY.
- C. INSTALL NEW LEAD COATED COPPER COPING AT THE FOURTH FLOOR WATER TABLE. USE CONTINOUS CLEAT AS INDICATED ON DRAWINGS. THE COPING WILL BE KEYED INTO A KERF REGLET AND SET IN SEALANT.

2 WATER TABLES AT THE FOLLOWING LOCATIONS: SECONDARY FOURTH FLOOR WATER TABLE ABOVE LION HEAD SHELF, NINTH FLOOR WATER TABLE, AND ELEVENTH FLOOR WATER TABLE:

- A. ALL DETERIORATED SPALLED OR EXFOLIATED COLUSA SANDSTONE ON HORIZONTAL PLANE TO BE COVERED WITH COPING SHALL TO BE REMOVED.
- B. PREPARE AND PATCH AREAS WHERE SANDSTONE WAS REMOVED USING EDISON CUSTOM SYSTEM 45 IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- C. PREPARE SURFACE AND INSTALL PATCHING COMPOUND IN STRICT ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTION.
- D. INSTALL NEW LEAD COATED COPPER COPING OVER THE SECONDARY 4TH FLOOR WATER TABLE. USE CONTINUOS CLEAT AS INDICATED ON DRAWINGS. THE COPING WILL BE KEYED INTO A KERF REGLET AND SET IN SEALANT.

WINDOW SILLS:

A. WINDOW SURROUND MOLDING: REMOVE DETERIORATED SECTIONS AS NEEDED AND REPLACE WITH SAND STONE TO MATCH EXISTING PROFILE. PIN AS INDICATED ON SCHEDULE.

4. PROJECTIONS (BULL HEADS AND FRUIT) AT ELEVENTH FLOOR:

- A. ALL PROJECTING SANDSTONE AT TOP CORNICE WILL BE CHECKED FOR VIABILITY AND WHERE WEAK IT WILL TOOLED BACK TO SOUND SANDSTONE.
- B. AT SOME LOCATIONS IT WILL BE NECESSARY TO REPLACE THE SANDSTONE THAT WAS REMOVED BY FABRICATING NEW ARCHITECTURAL ELEMENTS OUT OF COLUSA SANDSTONE AND INSTALLING THEM AS DUTCHMAN PATCHES. PIN NEW PIECES AS DIRECTED.

5. WINDOWS:

A. ALL LOOSE PAINT IS TO BE REMOVED (EXISTING PAINT WAS TESTED AND DOES NOT CONTAIN LEAD).

- B. THE WOOD WINDOWS ARE TO BE SANDED AND PREPARED TO RECEIVE NEW PAINT. C. THE WOOD WINDOWS ARE TO BE PRIMED AND PAINTED USING ICI PAINT PRODUCTS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- D. A PERIMETER BEAD OF DOW CORNING 795 SILICONE SEALANT IS TO BE INSTALLED TO THE NEWLY PAINTED (ONCE DRY AND CURED) WINDOWS AT THE TRANSITION TO SANDSTONE.

DRAWING INDEX

- G-001 TITLE SHEET AND PROJECT INFORMATION
- ELEVATIONS OF MONTGOMERY STREET FACADE
- A-501 DETAILS AND SECTION PROFILES

PROJECT DIRECTORY AND DESCRIPTION

ARCHITECT:

NADIA ANIS, AIA FERRARI-MOE LLP.

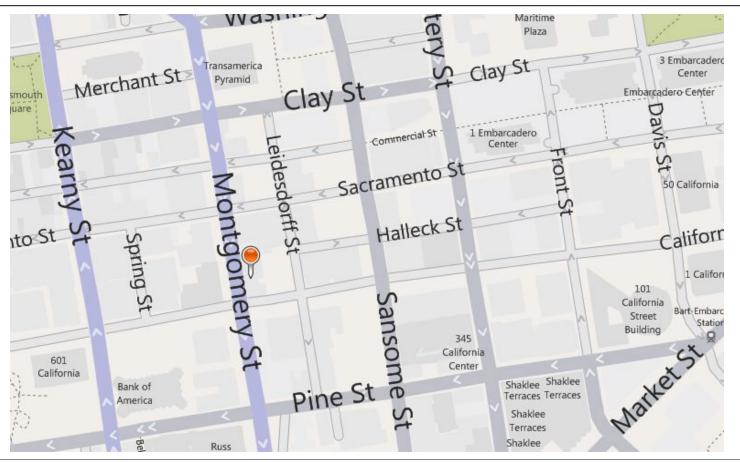
55 SHAVER ST. SUITE 300 SAN RAFAEL, CA. 94901 P: (415) 458-3511 ex. **103** F: (415) 458-3512

FACADE RESTORATION OF AN 11 STORY, TYPE-A BUILDING,

DESCRIPTION:

CONSTRUCTED IN 1901, LOCATED ON THE CORNER OF CALIFORNIA AND MONTGOMERY STREETS. WORK TO INCLUDE WATERPROOFING MEASURES, SANDSTONE RESTORATION AND PAINTING OF WINDOW TRIM. ALL REPAIRS TO BE DONE IN KIND, AND EXTENSIVE CARE TO BE TAKEN TO PRESERVE HISTORIC CONTEXT.

VICINITY MAP



PROJECT GENERAL NOTES

ALL WORK SHALL CONFORM TO THE CURRENT ADOPTED VERSION OF THE UBC AND ANY LOCALLY ADOPTED CODES OR ORDINANCES.

THE INTENT OF THE DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ANY ONE SHALL BE AS BINDING AS REQUIRED BY ALL. IN CASE OF CONFLICT, THE MORE RESTRICTIVE REQUIREMENT SHALL GOVERN.

CONTRACTOR SHALL VERIFY EXISTING (E) CONDITIONS AND THOSE SHOWN ON THE DRAWINGS. CONTRACTOR SHALL NOTIFY ARCHITECT IF CONDITIONS VARY FROM THOSE SHOWN OR IF HIDDEN CONDITIONS EXIST WHICH WOULD BE DETRIMENTAL TO PROPER INSTALLATION.

DRAWINGS ARE BASED ON ORIGINAL DESIGN SET AND DO NOT NECESSARILY REFLECT AS-BUILT CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS, DIMENSIONS, AND QUANTITIES. EXACT QUANTITIES, LOCATIONS, AND MEASUREMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

DURING THE WORK, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS FOR ACCESS TO THE WORK (I.E. SWINGSTAGES, MAN LIFTS, AND/OR SCAFFOLDING, ETC.)

CONTRACTOR WILL BE RESPONSIBLE FOR ALL PERMITS

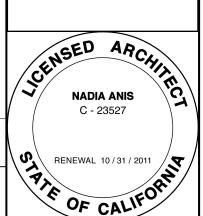
PROTECTION OF ALL HARDSCAPE (SIDEWALKS, DRIVEWAYS, ETC.) AND SOFTSCAPE (LANDSCAPE, IRRIGATION LINES, ETC.) IS REQUIRED DURING THE WORK.

CONTRACTOR SHALL PROVIDE BARRICADES AND TEMPORARY DEBRIS BARRIERS, WHETHER SHOWN ON DRAWINGS OR NOT, AS NECESSARY TO PROTECT TENANTS AND OWNER'S EQUIPMENT, FURNISHINGS, OPERATIONS AND AREAS FROM DAMAGE, UNWARRANTED INTERRUPTION, UNAUTHORIZED ENTRY, CONSTRUCTION HAZARDS OR UNNECESSARY INCONVENIENCE DURING ALL OPERATIONS UNDER THIS CONTRACT.

CONTRACTOR SHALL KEEP MEANS OF EGRESS AND DRIVEWAYS CLEAR AT ALL TIMES.

CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS.

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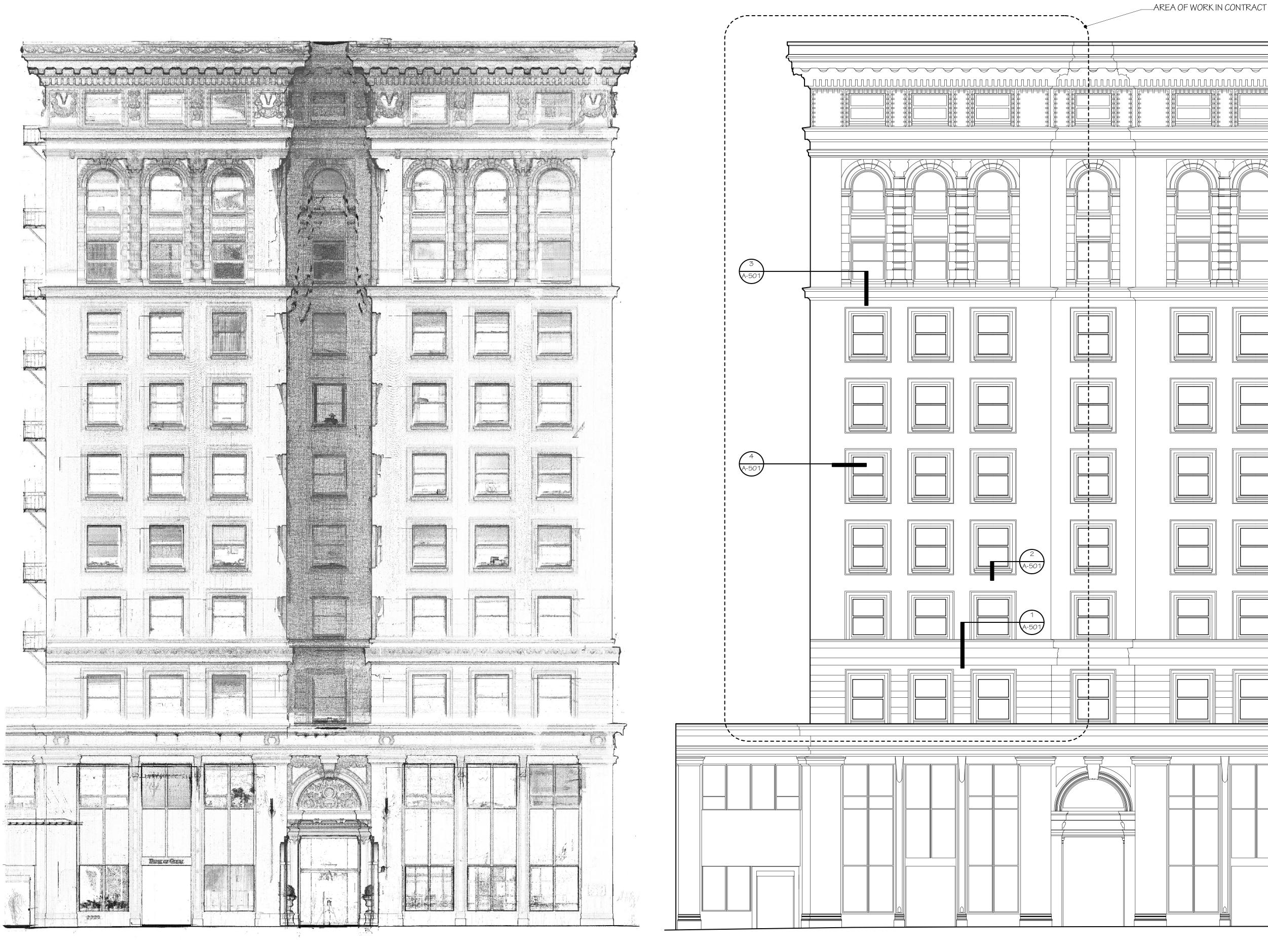
REVISION:

FILE: 08140 - 110711 Sandstone

PROJ #: 08140 SCALE: As Noted

G001

OF 3 SHEETS



11TH FLOOR 10TH FLOOR 9TH FLOOR 8TH FLOOR 7TH FLOOR 6TH FLOOR 5TH FLOOR 4TH FLOOR 3RD FLOOR

ORTHOGRAPHIC PROJECTION OF LASER SCAN DATA - MONTGOMERY STREET FACADE Scale: 1/8" = 1'-0"

MONTGOMERY STREET FACADE - WEST ELEVATION

Scale: 1/8" = 1'-0"

MOE, LLP FERRARI

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C - 23527

RENEWAL 10/31/2011

400 MONTGOMERY STR SANDSTONE FACADE RESORA 400 Montgomery Street San Francisc BLOCK 0239 - LOT 009

ISSUE:

REVISION:

MARK DATE DESCRIPTION A 5/25/11 PERMIT SET

DELTA DATE DESCRIPTION

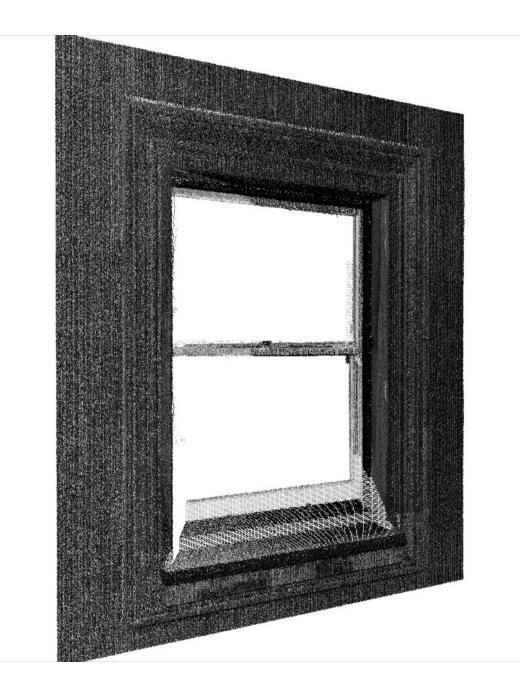
WEST ELEVATION

SCALE: As Noted

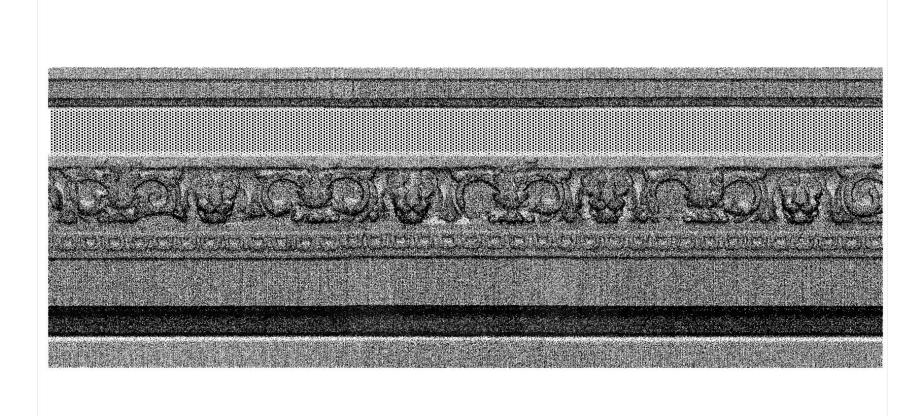
FILE: 08140 - 110711 Sandstone

OF 3 SHEETS

DW PROJ #: 08140 ORTHOGRAPHIC PROJECTON FROM SCAN DATA OF WATER TABLE @ 9TH FLOOR



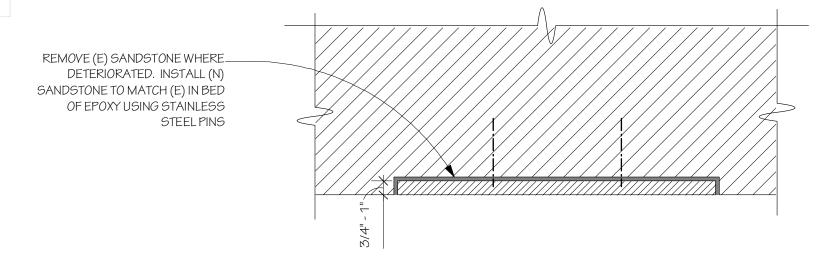
ORTHOGRAPHIC PROJECTION FROM SCAN DATA OF TYPICAL WINDOW



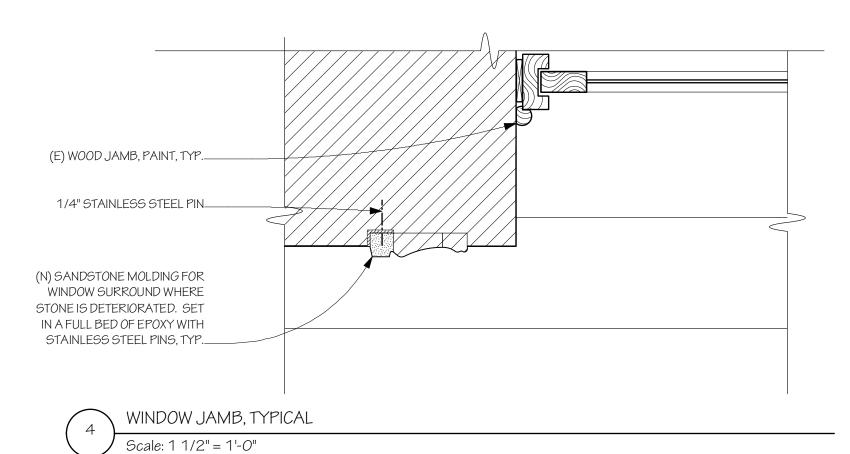
ORTHOGRAPHIC PROJECTION FROM SCAN DATA OF LION HEADS ABOVE 3RD FLOOR

BLOCK LENGTH	QUANTITY OF PINS (EQUALLY SPACED)	MIN.	MAX	END SPACE
20" - 32"	2	8"	20"	6"
33" - 52"	3	9"	20"	6"
53" - 71"	4	13.67"	19.67"	6"
72" - 91"	5	15"	19.67"	6"
92" - 108"	6	16"	19.2"	6"

SPACING OF PINS BASED ON BLOCK LEGNTH

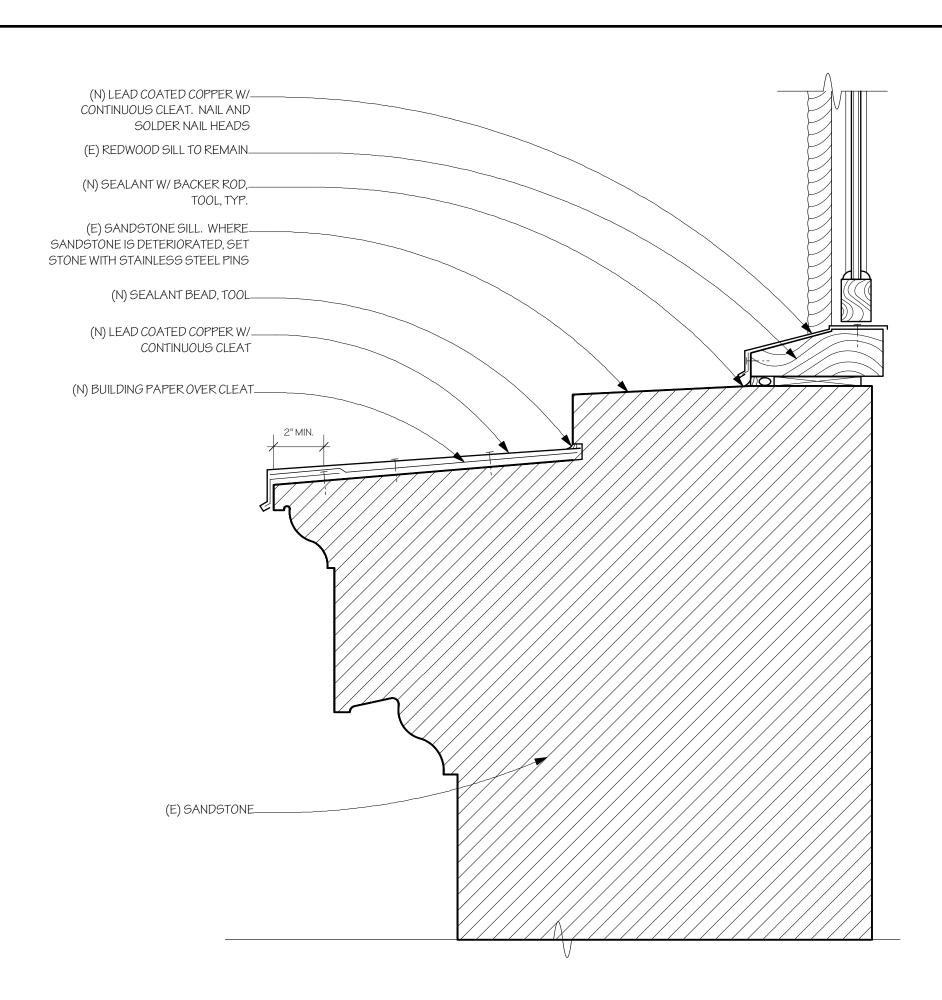


DUTCHMAN REPAIR, TYPICAL

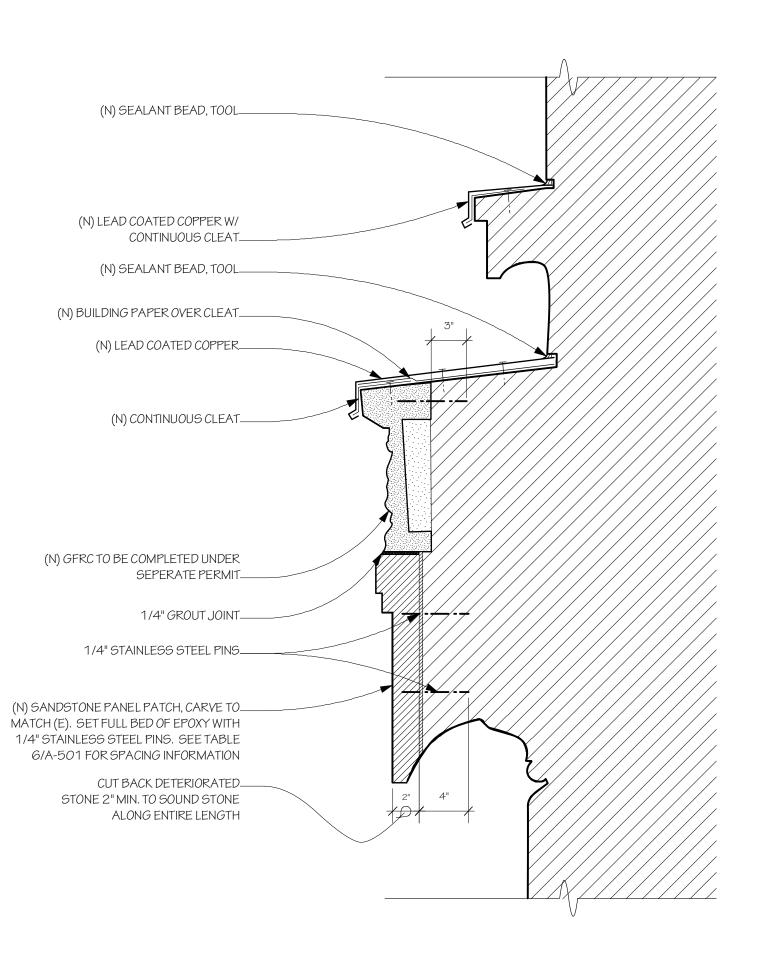


(E) WOOD SILL TO REMAIN. (N) LEAD COATED COPPER W/ CONTINUOUS-CLEAT, FASTEN W/ COPPER NAILS, SOLDER ALL NAIL HEADS (N) SEALANT AND BACKER ROD, TOOL... (N) GFRC SILL TO BE COMPLETED UNDER SEPERATE. (N) STONE PIECE. CARVE TO MATCH (E), SET IN FULL BED OF EPOXY WITH STAINLESS STEEL PINS_

WINDOW SILL, TYPICAL. Scale: 1 1/2" = 1'-0"



9TH FLOOR WATER TABLE AT WINDOW SILL Scale: 1 1/2" = 1'-0"



WATER TABLE AT LION HEADS - 4TH FLOOR Scale: 1 1/2" = 1'-0"

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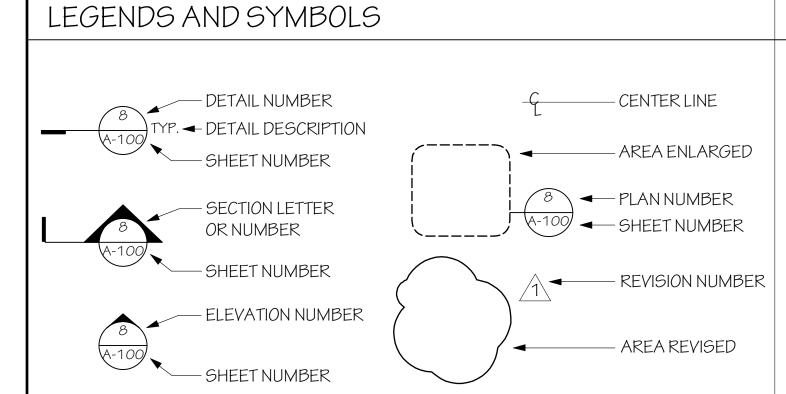
NSED ARC NADIA ANIS C - 23527 RENEWAL 10/31/2011

400 MONTGOMERY STREET
SANDSTONE FACADE RESORATION
400 Montgomery Street San Francisco, CA 94104
BLOCK 0239 - LOT 009

ISSUE: MARK DATE DESCRIPTION A 5/25/11 PERMIT SET REVISION: FILE: 08140 - 110711 Sandstone DW PROJ #: 08140

SCALE: As Noted

OF 3 SHEETS



ABBREVIATIONS

&	AND	F.D.	FLOOR DRAIN	P.T.	PRESSURE TREATED
@	AT	FDN.	FOUNDATION	P.T.D.F.	PRESSURE TREATED
A.B.	ANCHOR-BOLT	FIN.	FINISH	_	DOUGLAS FIR
A/C	AIR-CONDITIONING	FL.	FLOOR	R	
ACOUS.	ACOUSTICAL	FLASH.	FLASHING	R/R	REMOVE & REINSTALL
A.D.	AREA DRAIN	F.O.C.	FACE OF CONCRETE	(R)	REMOVE
ADJ.	ADJUSTABLE	F.O.F.	FACE OF FINISH	R.	RISER
AGGR.	AGGREGATE	F.O.S	FACE OF STUDS	R&S	ROD & SEALANT
AL.	ALUMINUM	F.S.	FULL SIZE	RAD.	RADIUS
ALT.	ALTERNATE	FT.	FOOT OR FEET	R.D.	ROOF DRAIN
ANOD.	ANODIZED	FTG.	FOOTING	REF.	REFERENCE
APPROX.	APPROXIMATE	FURR.	FURRING	REINF.	REINFORCED
ARCH.	ARCHITECTURAL	G		R.S.P.	REINFORCED STEEL
ASPH.	ASPHALT	G.A.	GAUGE		PIPE
В		GALV.	GALVANIZED	REQ.	REQUIRED
B.D.	BOARD	G.L.	GLASS	RESIL.	RESILIENT
BITUM.	BITUMINOUS	GND.	GROUND	RM.	ROOM
B.F.	BASE FLASHING	GR.	GRADE	R.O.	ROUGH OPENING
BLDG.	BUILDING	GSM.	GALVANIZED SHEET	R.W.L.	RAIN WATER LEADER
BLK.	BLOCK		METAL	S	
BLKG.	BLOCKING	GWB	GYPSUM WALL BOARD	<i>S</i> .	SOUTH
BLW.	BELOW	GYP.	GYPSUM	S.A.M.	SELF ADHERED
BM.	BEAM	H	211 2011	O.7 1.1V1.	MEMBRANE
BOT.	BOTTOM	H.B.	HOSE BIBB	S.C.	SOLID CORE
BSMT.	BASEMENT	H.C.	HOLLOW CORE	SCHED.	SCHEDULE
BTWN.	BETWEEN	HDG.	HOT DIPPED GALVANIZED	SECT.	SECTION
B.U.R.	BUILT-UP ROOFING	HGT.	HEIGHT	S.G.D.	
	DUILITUT RUUTING	H.M.		S.G.D. SH.	SLIDING GLASS DOOR
CB	CATCHEACH		HOLLOW METAL		SHELF
C.B.	CATCH BASIN	HORIZ.	HORIZONTAL	SHT.	SHEET
CEM.	CEMENT	H.P.	HIGH POINT	SHTG.	SHEATHING
CFL.	COUNTERFLASHING	HR.	HOUR	SIM.	SIMILAR
C.I.	CASTIRON	H.W.	HOT WATER	5Q.	SQUARE
C.I.P	CAST-IN-PLACE	l		<i>S.S.</i>	STAINLESS STEEL
C.J.	CONTROL JOINT	I.D.	INSIDE DIAMETER	STA.	STATION
CLG.	CEILING	INT.	INTERIOR	STD.	STANDARD
CLKG.	CAULKING	INV.	INVERT	STL.	STEEL
CLR.	CLEAR	J		STOR.	STORAGE
CMU.	CONCRETE MASONRY	JT.	JOINT	STRL.	STRUCTURAL
	UNIT	L		SYM.	SYMMETRICAL
CNTR.	COUNTER	'L'	ANGLE	T	
COL.	COLUMN	L.B.	LAG BOLT	T.C.	TOP OF CURB
COMP.	COMPOSITION	L.P.	LOW POINT	TEL.	TELEPHONE
CONC.	CONCRETE	LT.	LIGHT	T. & G.	TONGUE & GROOVE
CONT.	CONTINUOUS	LVR.	LOUVER	THK.	THICK
CORR.	CORRIDOR	L.W.	LIGHTWEIGHT	THRESH.	THRESHOLD
CTR.	CENTER	M		T.P.	TOP OF PAVEMENT
CTSK.	COUNTERSUNK	MAX.	MAXIMUM	T.S.	TUBE STEEL
C/W	COMPLETE WITH	M.B.	MODIFIED BITUMEN	T.W.	TOP OF WALL
D		МЕСН.	MECHANICAL	TYP.	TYPICAL
DBL.	DOUBLE	МЕМВ.	MEMBRANE	U	
DEPT.	DEPARTMENT	MET.	METAL	UNF.	UNFINISHED
D.D.	DECK DRAIN	MFR.	MANUFACTURER	U.O.N.	UNLESS OTHERWISE
D.F.	DOUGLAS FUR	MIN.	MINIMUM		NOTED
D.F.T.	DRY FILM THICKNESS	MISC.	MISCELLANEOUS	V	
DIA.	DIAMETER	MTD.	MOUNTED	VERT.	VERTICAL
DIAG.	DIAGONAL	MTL.	MATERIAL	VEST.	VESTIBULE
DIM.	DIMENSION	MUL.	MULLION	V.I.F.	VERIFY IN FIELD
DN.	DOWN	N N	,	V.S.	VENTSTACK
D.P.	DAMPPROOFING	N.	NORTH	W	
DR.	DOOR	(N)	NEW	W.	WEST
DS.	DOWNSPOUT	N.I.C.	NOT IN CONTRACT	W/	WITH
D.S.P.	DRY STANDPIPE	NO. OR #	NUMBER	WD.	WOOD
DTL.	DETAIL	NOM.	NOMINAL	WIN.	WINDOW
DWG.	DRAWING	N.T.S.	NOT TO SCALE	W/O	WINDOW
	VIN WYIINU		NOTIOUCALE	W.O.	
E	TACT.	0	OVER		WHERE OCCURS
E.	EAST	0/	OVER	WP.	WATERPROOP
(E)	EXISTING	O.A.	OVERALL	WT.	WEIGHT
E.A.	EACH	0.C.	ON CENTER	W.W.F.	WELDED WIRE FABRIC
E.B.	EXPANSION BOLT	0.D.	OUTSIDE DIAMETER		
E.J.	EXPANSION JOINT	0.F.	OVERFLOW		
ELAS.	ELASTOMERIC	0.F.D.	OVERFLOW DRAIN		
ELEV.	ELEVATION	OPNG.	OPENING		
EXCL.	ENCLOSURE	OPP.	OPPOSITE DI 1070 OFFILI		
E.Q.	EQUAL	P.C.	PHOTO CELL		
EQPT.	EQUIPMENT	P.E.N.	PERIMETER EDGE		
EXP.	EXPANSION	_	NAILING		
EXPO.	EXPOSED	P			
EXT.	EXTERIOR	P.L.	PLATE		
		PLAS.	PLASTER		
		PLYWD.	PLYW00D		
		PT.	POINT		

PRODUCTS SPECIFICATION

GLASS FIBER REINFORCED CONCRETE (GFRC)

A. MATERIALS: 1. AGGREGATES:

- A. BACK-UP MIX: WASHED AND DRIED SILICA SAND OR OTHER SAND HAVING A HISTORY O SUCCESSFUL USE IN GLASS-FIBER-REINFORCED PRECAST CONCRETE PANEL CONSTRUCTION; PASSING THROUGH A NO. 20 SIEVE.
- B. FACING MIX: FINE AND COURSE AGGREGATE FOR FACE MIX SHALL CONFORM TO ASTM C 33 EXCEPT FOR GRADATION. AGGREGATES SHALL BE CLEAN, HARD, STRONG, DURABLE, INERT, AND FREE OF STAINING AND DELETERIOUS MATERIALS. PROVIDE AGGREGATE IN COLORS AND SIZES AS REQUIRED TO ACHIEVE THE PANEL FINISH TEXTURE AND COLORS INDICATED ON THE DRAWINGS
- 2. PORTLAND CEMENT: ASTM C 150, TYPE I, II OR III. USE THE SAME TYPE, BRAND AND COLOR OF PORTLAND CEMENT FOR ALL PANELS AND SHAPES. COLOR SHALL BE AS REQUIRED TO OBTAIN THE PANEL FACING COLOR INDICATED.
 - 3. ADMIXTURES:
- A. AIR-ENTRAINING ADMIXTURES, ASTM C 260. ASTM C260, ASTM C494, ASTM C618 OR ACRYLIC THERMOPLASTIC COPOLYMER DISPERSION CONFORMING TO PCI MNL-130, APPENDIX E.
 - B. POLYMER COMPOUND: CONFORM TO REQUIREMENTS OF PCI MNL-128, APPENDIX L.
- 4. COLORING AGENT: ASTM C 979; SHALL HAVE NO ADVERSE EFFECTS TO GLASS-FIBER-REINFORCED PRECAST CONCRETE PANEL SET AND STRENGTH; SHALL BE STABLE AT HIGH TEMPERATURE; AND SHALL BE SUNLIGHT FAST AND ALKALI-RESISTANT. COLOR SHALL BE AS REQUIRED TO OBTAIN PANEL FACING COLOR SELECTED.
 - 5. WATER FOR MIXING CONCRETE: USE POTABLE WATER.

ORTHOGRAPHIC PROJECTIONS

- 6. F. GLASS FIBER: CONFORMING TO PCI MNL-130, APPENDIX D AND SPECIFICALLY DESIGNED
- TO BE 7. COMPATIBLE WITH THE AGGRESSIVE ALKALINE ENVIRONMENT OF PORTLAND CEMENT BASED COMPOSITES

ORTHOGRAPHIC PROJECTION FROM SCAN DATA OF TYPICAL WINDOW

ORTHOGRAPHIC PROJECTION FROM SCAN DATA OF LION HEADS ABOVE 3RD FLOOR

8. OR FIBERS WITH A HISTORY OF SUCCESSFUL USE IN PORTLAND CEMENT BASED COMPOSITES THAT HAS BEEN MODIFIED TO BE COMPATIBLE WITH THE FIBER.

400 MONTGOMERY STREET SANDSTONE FACADE RESTORATION 400 MONTGOMERY ST. SAN FRANCISCO, CA 94104

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SCOPE OF WORK

AREA SPECIFIC SCOPE OF WORK

1. FOURTH FLOOR LION HEADS AND SHELF WATER TABLE:

- A. THE LION HEADS WILL BE REMOVED BY SLICING BACK 6" AT THE HORIZONTAL PLANE AND JUST BENEATH THE LION HEADS AT THE GROUT JOINT. THIS WILL CREATE A SHELF FOR THE INSTALLATION OF NEW GFRC LION HEADS AS DESCRIBED BELOW.
- B. NEW GFRC LION HEAD (AND WREATH) CASTING TO BE CREATED USING SALVAGED
- C. THE NEW GFRC LION HEAD SHELF WILL BE ANCHORED IN PLACE USING STAINLESS STEEL ALL THREAD SET IN STRUCTURAL EPOXY. REFER TO SCHEDULE FOR PINNING INFORMATION.

2. WINDOW SILLS:

- A. WHERE WINDOW STONE SILLS ARE DETERIORATED, CUT THE STONE SILLS AND REPLACE WITH GFRC.
- B. NEW SILLS WILL BE FABRICATED OFFSITE AND CUT TO THE APPROPRIATE LENGTH. PIN AS INDICATED ON SCHEDULE. THE ENDS CAN BE TOOLED TO MATCH EXISTING ONCE INSTALLED.

ORTHOGRAPHIC PROJECTION FROM SCAN DATA OF TYPICALARCHWAY

DRAWING INDEX

TITLE SHEET AND PROJECT INFORMATION A-201 ELEVATION, DETAILS AND SCHEDULES

PROJECT DIRECTORY AND DESCRIPTION

ARCHITECT:

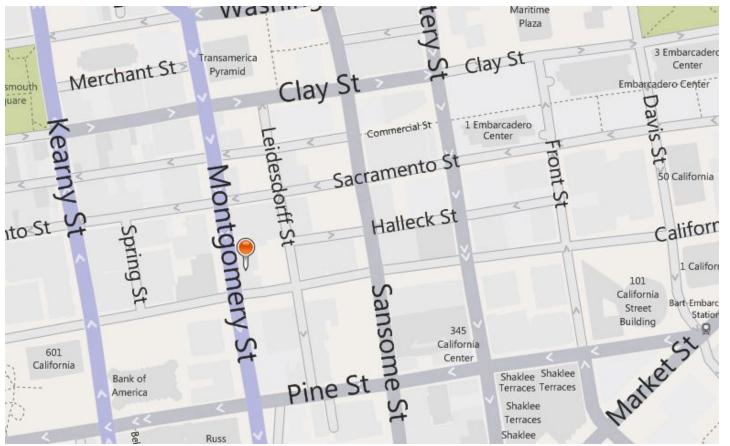
NADIA ANIS, AIA

FERRARI-MOE LLP. 55 SHAVER ST. SUITE 300 SAN RAFAEL, CA. 94901 P: (415) 458-3511 ex. **103** F: (415) 458-3512

DESCRIPTION:

FACADE RESTORATION OF AN 11 STORY, TYPE-A BUILDING, CONSTRUCTED IN 1901, LOCATED ON THE CORNER OF CALIFORNIA AND MONTGOMERY STREETS. WORK TO INCLUDE WATERPROOFING MEASURES, SANDSTONE RESTORATION AND PAINTING OF WINDOW TRIM. ALL REPAIRS TO BE DONE IN KIND, AND EXTENSIVE CARE TO BE TAKEN TO PRESERVE HISTORIC CONTEXT.

VICINITY MAP



ALL WORK SHALL CONFORM TO THE CURRENT ADOPTED VERSION OF THE UBC AND ANY LOCALLY

THE INTENT OF THE DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ANY ONE SHALL BE AS BINDING AS REQUIRED BY ALL. IN CASE OF CONFLICT, THE MORE RESTRICTIVE REQUIREMENT SHALL GOVERN.

CONTRACTOR SHALL NOTIFY ARCHITECT IF CONDITIONS VARY FROM THOSE SHOWN OR IF HIDDEN

WORK (I.E. SWINGSTAGES, MAN LIFTS, AND/OR SCAFFOLDING, ETC.)

CONTRACTOR WILL BE RESPONSIBLE FOR ALL PERMITS

PROTECTION OF ALL HARDSCAPE (SIDEWALKS, DRIVEWAYS, ETC.) AND SOFTSCAPE (LANDSCAPE, IRRIGATION LINES, ETC.) IS REQUIRED DURING THE WORK.

CONTRACTOR SHALL PROVIDE BARRICADES AND TEMPORARY DEBRIS BARRIERS, WHETHER SHOWN ON DRAWINGS OR NOT, AS NECESSARY TO PROTECT TENANTS AND OWNER'S EQUIPMENT, FURNISHINGS, OPERATIONS AND AREAS FROM DAMAGE, UNWARRANTED INTERRUPTION, OPERATIONS UNDER THIS CONTRACT.

CONTRACTOR SHALL KEEP MEANS OF EGRESS AND DRIVEWAYS CLEAR AT ALL TIMES.

CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS.

PROJECT GENERAL NOTES

ADOPTED CODES OR ORDINANCES.

CONTRACTOR SHALL VERIFY EXISTING (E) CONDITIONS AND THOSE SHOWN ON THE DRAWINGS. CONDITIONS EXIST WHICH WOULD BE DETRIMENTAL TO PROPER INSTALLATION.

DRAWINGS ARE BASED ON ORIGINAL DESIGN SET AND DO NOT NECESSARILY REFLECT AS-BUILT CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS, DIMENSIONS, AND QUANTITIES. EXACT QUANTITIES, LOCATIONS, AND MEASUREMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

DURING THE WORK, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS FOR ACCESS TO THE

UNAUTHORIZED ENTRY, CONSTRUCTION HAZARDS OR UNNECESSARY INCONVENIENCE DURING ALL



JSED ARCHIT **NADIA ANIS**

400 MONT SANDSTONE F Montgomery St BLOCk

ISSUE: A 5/25/11 PERMIT SET

REVISION:

FILE: 08140 - 110707 GFRC

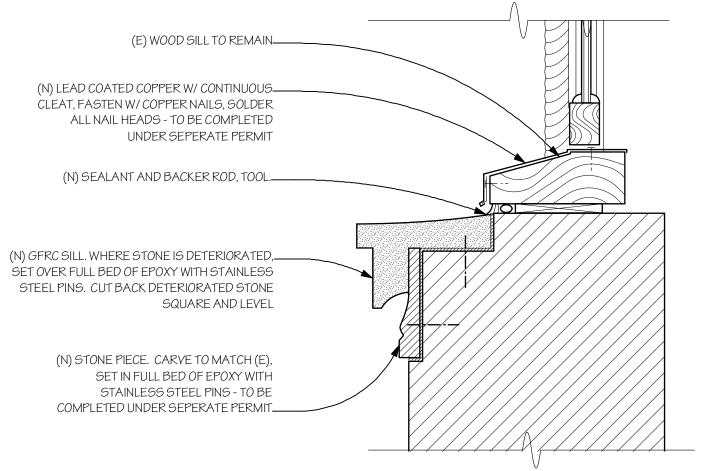
PROJ #: 08140 SCALE: As Noted

G001

OF 2 SHEETS

BLOCK LENGTH	QUANTITY OF PINS (EQUALLY SPACED)	MIN.	MAX	END SPACE
20" - 32"	2	8"	20"	6"
33" - 52"	3	9"	20"	6"
53" - 71"	4	13.67"	19.67"	6"
72" - 91"	5	15"	19.67"	6"
92" - 108"	6	16"	19.2"	6"

SPACING OF PINS BASED ON BLOCK LEGNTH



WINDOW SILL, TYPICAL. Scale: 1 1/2" = 1'-0"

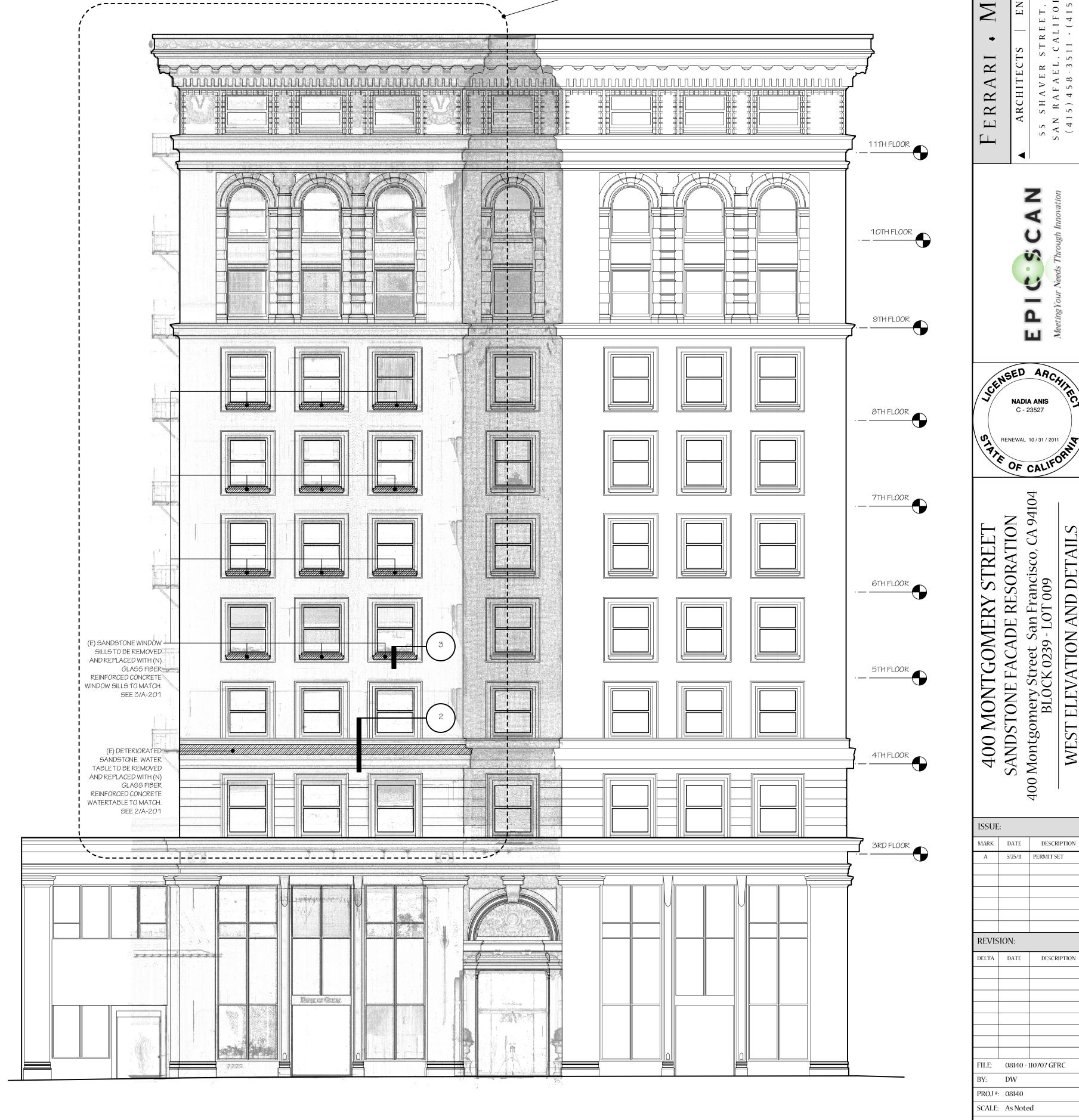
(N) SEALANT BEAD, TOOL - TO____ BE COMPLETED UNDER SEPERATE PERMIT (N) LEAD COATED COPPER W/ CONTINUOUS CLEAT - TO BE COMPLETED UNDER SEPERATE PERMIT___

(N) SEALANT BEAD, TOOL____ (N) BUILDING PAPER OVER CLEAT____ (N) LEAD COATED COPPER_ (N) CONTINUOUS CLEAT___ 3/8" STAINLESS STEEL PINS. (N) MORTAR BED_ (N) GFRC PANEL TO MATCH (E) LION HEAD COURSE. PIN TO BACKING SANDSTONE WITH STAINLESS STEEL PINS_ 1/4" GROUT JOINT___ 1/4" STAINLESS STEEL PINS_ (N) SANDSTONE PANEL PATCH, CARVE TO-MATCH (E). SET FULL BED OF EPOXY WITH

CUT BACK DETERIORATED_ STONE 2" MIN. TO SOUND STONE ALONG ENTIRE LENGTH

1/4" STAINLESS STEEL PINS. SEE TABLE 6/A-501 FOR SPACING INFORMATION - TO BE COMPLETED UNDER SEPERATE PERMIT

> WATER TABLE AT LION HEADS - 4TH FLOOR Scale: 1 1/2" = 1'-0"



_AREA OF WORK IN CONTRACT

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WEST ELEVATION AND DI

A 5/25/11 PERMIT SET

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OF 2 SHEETS

NADIA ANIS C - 23527

MONTGOMERY STREET FACADE - WEST ELEVATION Scale: 1/8" = 1'-0"

ABBREVIATIONS

A		F			
&	AND	F.D.	FLOOR DRAIN	P.T.	PRESSURE TREATED
<u>@</u>	AT	FDN.	FOUNDATION	P.T.D.F.	PRESSURE TREATED
A.B.	ANCHOR-BOLT	FIN.	FINISH		DOUGLAS FIR
A/C	AIR-CONDITIONING	FL.	FLOOR	R	
ACOUS.	ACOUSTICAL	FLASH.	FLASHING	R/R	REMOVE & REINSTAL
A.D.	AREA DRAIN	F.O.C.	FACE OF CONCRETE	(R)	REMOVE
ADJ.	ADJUSTABLE	F.O.F.	FACE OF FINISH	R.	RISER
AGGR.	AGGREGATE	F.O.S	FACE OF STUDS	R&S	ROD & SEALANT
AL. ALT.	ALUMINUM ALTERNATE	F.S. FT.	FULL SIZE FOOT OR FEET	RAD. R.D.	RADIUS ROOF DRAIN
ANOD.	ANODIZED	FTG.	FOOTING	REF.	REFERENCE
APPROX.	APPROXIMATE	FURR.	FURRING	REINF.	REINFORCED
ARCH.	ARCHITECTURAL	G		R.S.P.	REINFORCED STEEL
ASPH.	ASPHALT	G.A.	GAUGE		PIPE
В		GALV.	GALVANIZED	REQ.	REQUIRED
B.D.	BOARD	G.L.	GLASS	RESIL.	RESILIENT
BITUM.	BITUMINOUS	GND.	GROUND	RM.	R00M
B.F.	BASE FLASHING	GR.	GRADE	R.O.	ROUGH OPENING
BLDG.	BUILDING	GSM.	GALVANIZED SHEET	R.W.L.	RAIN WATER LEADER
BLK.	BLOCK		METAL	S	
BLKG.	BLOCKING	GWB	GYPSUM WALL BOARD	5.	SOUTH
BLW.	BELOW	GYP.	GYPSUM	S.A.M.	SELF ADHERED
BM.	BEAM	Н	HOCE BIRB		MEMBRANE
BOT. BSMT.	BOTTOM BASEMENT	H.B. H.C.	HOSE BIBB HOLLOW CORE	S.C. SCHED.	SOLID CORE SCHEDULE
BTWN.	BETWEEN	HDG.	HOLLOW CORE HOT DIPPED GALVANIZED	SECT.	SECTION
B.U.R.	BUILT-UP ROOFING	HGT.	HEIGHT	9.G.D.	SLIDING GLASS DOOR
D.U.K. C	POILT OF NOOFING	Н.М.	HOLLOW METAL	5.G.D. SH.	SHELF
С .В.	CATCH BASIN	HORIZ.	HORIZONTAL	SHT.	SHEET
CEM.	CEMENT	H.P.	HIGH POINT	SHTG.	SHEATHING
CFL.	COUNTERFLASHING	HR.	HOUR	SIM.	SIMILAR
C.I.	CASTIRON	H.W.	HOT WATER	SQ.	SQUARE
C.I.P	CAST-IN-PLACE	I		S.S.	STAINLESS STEEL
C.J.	CONTROL JOINT	I.D.	INSIDE DIAMETER	STA.	STATION
CLG.	CEILING	INT.	INTERIOR	STD.	STANDARD
CLKG.	CAULKING	INV.	INVERT	STL.	STEEL
CLR.	CLEAR	J		STOR.	STORAGE
CMU.	CONCRETE MASONRY	JT.	JOINT	STRL.	STRUCTURAL
	UNIT	L		SYM.	SYMMETRICAL
CNTR.	COUNTER	'L'	ANGLE	T	TOD OF OURD
COLUB	COLUMN	L.B.	LAG BOLT	T.C.	TOP OF CURB
COMP.	COMPOSITION	L.P.	LOW POINT	TEL.	TELEPHONE
CONC. CONT.	CONCRETE	LT. LVR.	LIGHT LOUVER	T. & G. THK.	TONGUE & GROOVE THICK
CORR.	CORRIDOR	L.W.	LIGHTWEIGHT	THRESH.	THRESHOLD
CTR.	CENTER	M	LIOTTIWLIOTTI	T.P.	TOP OF PAVEMENT
CTSK.	COUNTERSUNK	MAX.	MAXIMUM	T.S.	TUBE STEEL
C/W	COMPLETE WITH	M.B.	MODIFIED BITUMEN	T.W.	TOP OF WALL
D		МЕСН.	MECHANICAL	TYP.	TYPICAL
DBL.	DOUBLE	МЕМВ.	MEMBRANE	U	
DEPT.	DEPARTMENT	MET.	METAL	UNF.	UNFINISHED
D.D.	DECK DRAIN	MFR.	MANUFACTURER	U.O.N.	UNLESS OTHERWISE
D.F.	DOUGLAS FUR	MIN.	MINIMUM		NOTED
D.F.T.	DRY FILM THICKNESS	MISC.	MISCELLANEOUS	V	
DIA.	DIAMETER	MTD.	MOUNTED	VERT.	VERTICAL
DIAG.	DIAGONAL	MTL.	MATERIAL	VEST.	VESTIBULE
DIM.	DIMENSION	MUL.	MULLION	V.I.F.	VERIFY IN FIELD
DN.	DOWN	N		V.S.	VENT STACK
D.P.	DAMPPROOFING	N.	NORTH	W	
DR.	DOOR DOWNGPOUT	(N)	NEW NOT IN CONTRACT	W.	WEST
DS.	DOWNSPOUT	N.I.C. NO. OR #	NOT IN CONTRACT	W/	WITH
D.S.P.	DRY STANDPIPE	NO. OK # NOM.	NUMBER NOMINAL	WD.	WOOD
DTL. DWG.	DETAIL DRAWING	NUM. N.T.S.	NOMINAL NOT TO SCALE	WIN. W/O	WINDOW WITHOUT
E	DICTIVINO	0	NOT TO SCALE	W.O.	WHERE OCCURS
■ E.	EAST	0/	OVER	WP.	WATERPROOP
(E)	EXISTING	0.A.	OVERALL	WT.	WEIGHT
E.A.	EACH	O.C.	ON CENTER	W.W.F.	WELDED WIRE FABRIO
E.B.	EXPANSION BOLT	O.D.	OUTSIDE DIAMETER		
E.J.	EXPANSION JOINT	O.F.	OVERFLOW		
ELAS.	ELASTOMERIC	O.F.D.	OVERFLOW DRAIN		
ELEV.	ELEVATION	OPNG.	OPENING		
	ENCLOSURE	OPP.	OPPOSITE		
EXCL.	EQUAL	P.C.	PHOTO CELL		
E.Q.		P.E.N.	PERIMETER EDGE		
E.Q. EQPT.	EQUIPMENT	I	NAILING		
E.Q. EQPT. EXP.	EXPANSION				
E.Q. EQPT. EXP. EXPO.	EXPANSION EXPOSED	P			
E.Q. EQPT. EXP. EXPO.	EXPANSION	P.L.	PLATE		
E.Q. EQPT. EXP. EXPO.	EXPANSION EXPOSED	P.L. PLAS.	PLASTER		
E.Q. EQPT. EXP. EXPO.	EXPANSION EXPOSED	P.L. PLAS. PLYWD.	PLASTER PLYWOOD		
E.Q. EQPT. EXP. EXPO.	EXPANSION EXPOSED	P.L. PLAS.	PLASTER		
E.Q. EQPT. EXP. EXPO.	EXPANSION EXPOSED	P.L. PLAS. PLYWD.	PLASTER PLYWOOD		
E.Q. EQPT. EXP. EXPO.	EXPANSION EXPOSED	P.L. PLAS. PLYWD.	PLASTER PLYWOOD		
EXCL. E.Q. EQPT. EXP. EXPO. EXT.	EXPANSION EXPOSED	P.L. PLAS. PLYWD.	PLASTER PLYWOOD		

PRODUCTS SPECIFICATION

1. STRIPPING AND CLEANING MATERIALS

A. HOT WATER FOR CLEANING: CLEAN POTABLE WATER

2. MORTAR MATERIALS

A. REPOINTING MORTAR SHALL BE A PRE-MIXED, PRE-COLORED CEMENT LIME BASED MIXTURE FORMULATED TO COMPLY WITH THE REQUIREMENTS OF ASTM C-270 TYPE N MORTAR. 1. SPEC-JOINT 46, AS MANUFACTURED BY EDISON COATINGS, INC., PLAINVILLE, CT. PHONE (800)

3 PATCHING MATERIAL

A. PATCHING MATERIAL SHALL BE A PREMIXED, CEMENTITIOUS MATERIAL WITH ACRYLIC LATEX-MODIFIER FORMULATED TO MATCH THE COLOR AND TEXTURE OF THE EXISTING SANDSTONE. MATERIAL MUST BE VAPOR PERMEABLE, FROST AND SALT RESISTANT, SHALL DEVELOP DIRECT TENSILI BOND STRENGTH OF 200 PSI MINIMUM, SHALL EXHIBIT LESS THAN 0.06% DRYING SHRINKAGE, AND SHALL HAVE A LINEAR COEFFICIENT OF THERMAL EXPANSION OF 0.000005 TO 0.000008 INCHES/INCH PER DEGREE FAHRENHEIT. MATERIAL SHALL BE COMPATIBLE WITH SUBSTRATE, INCLUDING BUT NOT LIMITED TO, POROSITY, TENSILE, AND COMPRESSIVE STRENGTH. MODULUS OF ELASTICITY SHALL BE 50,000 TO 100,000 PSI. NON-LATEX MORTARS SHALL BE UNACCEPTABLE.

1. "CUSTOM SYSTEM 45" BY EDISON COATINGS, INC., PLAINVILLE, CT (800) 697-8055. 2. THIN-SECTION GLAZE-SPALL REPAIR AND SURFACE PROFILING OF DEEP REPAIRS "THIN FILL 55" BY EDISON COATING, INC.

4. GLASS FIBER REINFORCED CONCRETE (GFRC)

A. MATERIALS:

AGGREGATES:

- A. BACK-UP MIX: WASHED AND DRIED SILICA SAND OR OTHER SAND HAVING A HISTORY OF SUCCESSFUL USE IN GLASS-FIBER-REINFORCED PRECAST CONCRETE PANEL CONSTRUCTION; PASSING THROUGH A NO. 20 SIEVE.
- B. FACING MIX: FINE AND COURSE AGGREGATE FOR FACE MIX SHALL CONFORM TO ASTM (33 EXCEPT FOR GRADATION. AGGREGATES SHALL BE CLEAN, HARD, STRONG, DURABLE, INERT, AND FREE OF STAINING AND DELETERIOUS MATERIALS. PROVIDE AGGREGATE IN COLORS AND SIZES AS REQUIRED TO ACHIEVE THE PANEL FINISH TEXTURE AND COLORS INDICATED ON THE DRAWINGS
- 2. PORTLAND CEMENT: ASTM C 150, TYPE I, II OR III. USE THE SAME TYPE, BRAND AND COLOR OF PORTLAND CEMENT FOR ALL PANELS AND SHAPES. COLOR SHALL BE AS REQUIRED TO OBTAIN THE PANEL FACING COLOR INDICATED.

ADMIXTURES:

- A. AIR-ENTRAINING ADMIXTURES, ASTM C 260. ASTM C260, ASTM C494, ASTM C618 OR ACRYLIC THERMOPLASTIC COPOLYMER DISPERSION CONFORMING TO PCI MNL-130, APPENDIX E.
 - B. POLYMER COMPOUND: CONFORM TO REQUIREMENTS OF PCI MNL-128, APPENDIX L.
- 4. COLORING AGENT: ASTM C 979; SHALL HAVE NO ADVERSE EFFECTS TO GLASS-FIBER-REINFORCED PRECAST CONCRETE PANEL SET AND STRENGTH; SHALL BE STABLE AT HIGH TEMPERATURE; AND SHALL BE SUNLIGHT FAST AND ALKALI-RESISTANT. COLOR SHALL BE AS REQUIRED TO OBTAIN PANEL FACING COLOR SELECTED.
- 5. WATER FOR MIXING CONCRETE: USE POTABLE WATER.
- 6. F. GLASS FIBER: CONFORMING TO PCI MNL-130, APPENDIX D AND SPECIFICALLY DESIGNED
- 7. COMPATIBLE WITH THE AGGRESSIVE ALKALINE ENVIRONMENT OF PORTLAND CEMENT
- 8. OR FIBERS WITH A HISTORY OF SUCCESSFUL USE IN PORTLAND CEMENT BASED COMPOSITES THAT HAS BEEN MODIFIED TO BE COMPATIBLE WITH THE FIBER.

5. REINFORCING MATERIALS

- A. PINS/THREADED STAINLESS STEEL: TYPE AND SIZE ARE SPECIFIED HEREIN AND AS INDICATED ON THE CONTRACT DRAWINGS, IF NOT INDICATED, AS PER PATCHING MATERIALS MANUFACTURER'S RECOMMENDATION. ANCHORS AND DOWELS SHALL BE 12" MINIMUM AND BE FABRICATED FROM ANSI TYPE 302/304 STAINLESS STEEL.
- B. MECHANICAL ANCHORS AND DOWELS (FOR DEEP REPAIRS AND OVERHANGING REPAIRS): STAINLESS STEEL THREADED ROD (ASTM F-593) WITH A DIAMETER AS INDICATED ON CONTRACT DRAWINGS, BENT AND CUT TO LENGTHS REQUIRED TO ACHIEVE EMBEDMENTS SHOWN ON CONTRACT DRAWINGS. CUT END OF ROD SQUARE.
- C. ADHESIVE: ADHESIVE SHALL BE A TWO COMPONENT, FLEXIBILIZED EPOXY GEL, WITH MINIMUM 4% ELONGATION, 300 PSI DIRECT TENSILE BOND STRENGTH, 10,000 PSI TENSILE STRENGTH. PRODUCT SHALL BE APPLICABLE TO METALS, MASONRY, CONCRETE AND OTHER SUBSTRATES AS REQUIRED, AND SHALL BE APPROPRIATE FOR USE AT AMBIENT TEMPERATURE FROM ZERO TO 100 DEGREES FAHRENHEIT
- 1. "FLEXI-WELD 520T", AS MANUFACTURED BY EDISON COATINGS, INC., PLAINVILLE, CT (800) 697-8055

6. SHEET METAL

- A. FREEDOM GRAY COATED COPPER AS MANUFACTURED BY REVERE CONFORMING TO ASTM B 370. FREEDOM GRAY IS COPPER COATED WITH AN ALLOY CONSISTING WITH A ZINC/TIN ALLOY THAT IS APPROXIMATELY 0.5 MILS THICK. COMPOSITION OF THE ALLOY SHALL BE APPROXIMATELY 50% ZINC AND 50% TIN WITH TRACE ELEMENTS CONTROLLED FOR DURABILITY, CORROSION RESISTANCE AND COLOR. THE ZINC/TIN ALLOY SHALL BE APPLIED BY THE HOT DIP PROCESS. ALL ZINC/TIN ALLOY COATED COPPER SHALL HAVE TEMPORARY, DEGRADABLE PRE-WEATHERED COATING TO MINIMIZE WATER STAINS DURING TRANSIT AND STORAGE AND PROVIDE INITIAL WEATHERED APPEARANCE, OR APPROVED EQUAL.
- B. SOLDER: WHERE USED ON ZINC/TIN ALLOY COATED COPPER, SOLDER SHALL CONFORM TO ASTM SPECIFICATION B32 AND SHALL BE PURE TIN OR LEAD FREE, HIGH HIGH-TIN.

7. SEALANT

A. DOW CORNING 756 ONE-PART SILICONE SEALANT. TO BE INSTALLED AFTER THE WINDOW FRAMES HAVE BEEN PAINTED.

400 MONTGOMERY STREET SANDSTONE FACADE RESTORATION

400 MONTGOMERY ST. SAN FRANCISCO, CA 94104

SCOPE OF WORK

I. GENERAL SCOPE OF WORK

- 1. SPALLED AND EXFOLIATED STONE IN FIELD OF WALL:
- A. CUT TO SQUARE SPALLED AND EXFOLIATED STONE TO EXPOSE SOUND MATERIAL AND IMPLEMENT A DUTCHMAN REPAIR WITH NEW COLUSA SANDSTONE. PIN PER SCHEDULE.

2. REPOINTING:

A. ROUT OUT TO DEPTH OF 1-1/2" CRACKED AND DETERIORATED GROUT JOINT. REPOINT IN MULTIPLE LIFTS. ALLOW 100% REPOINTING OF ALL JOINTS

II. AREA SPECIFIC SCOPE OF WORK

1. FOURTH FLOOR LION HEADS AND SHELF WATER TABLE:

- A. THE LION HEADS WILL BE REMOVED BY SLICING BACK 6" AT THE HORIZONTAL PLANE AND JUST BENEATH THE LION HEADS AT THE GROUT JOINT. THIS WILL CREATE A SHELF FOR THE INSTALLATION OF NEW GFRC LION HEADS AS DESCRIBED BELOW.
- B. NEW GFRC LION HEAD (AND WREATH) CASTING TO BE CREATED USING SALVAGED AND RESTORED ORIGINAL PIECES.
- C. THE NEW GFRC LION HEAD SHELF WILL BE ANCHORED IN PLACE USING STAINLESS STEEL ALL THREAD SET IN STRUCTURAL EPOXY. REFER TO SCHEDULE FOR PINNING INFORMATION.
- D. REMOVE DETERIORATED STONE BAND BELOW LION HEADS BY SLICING BACK 2" TO BOTTOM OF CORNICE. REPLACE WITH NEW SAND STONE CARVED TO MATCH EXISTING. PIN IN
- E. ALL ADDITIONAL PATCHING REQUIRED WILL ALSO BE ANCHORED USING STAINLESS STEEL ALL THREAD AND STRUCTURAL EPOXY.
- F. INSTALL NEW LEAD COATED COPPER COPING AT THE FOURTH FLOOR WATER TABLE. USE CONTINUOS CLEAT AS INDICATED ON DRAWINGS. THE COPING WILL BE KEYED INTO A KERF REGLET AND SET IN SEALANT.

2 WATER TABLES AT THE FOLLOWING LOCATIONS: SECONDARY FOURTH FLOOR WATER TABLE ABOVE LION HEAD SHELF, NINTH FLOOR WATER TABLE, AND ELEVENTH FLOOR WATER TABLE:

- A. ALL DETERIORATED SPALLED OR EXFOLIATED COLUSA SANDSTONE ON HORIZONTAL PLANE TO BE COVERED WITH COPING SHALL TO BE REMOVED.
- B. PREPARE AND PATCH AREAS WHERE SANDSTONE WAS REMOVED USING EDISON CUSTOM SYSTEM 45 IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. C. PREPARE SURFACE AND INSTALL PATCHING COMPOUND IN STRICT ACCORDANCE WITH
- D. INSTALL NEW LEAD COATED COPPER COPING OVER THE SECONDARY 4TH FLOOR WATER TABLE. USE CONTINUOS CLEAT AS INDICATED ON DRAWINGS. THE COPING WILL BE KEYED INTO A KERF REGLET AND SET IN SEALANT.

3. WINDOW SILLS:

MANUFACTURER'S PUBLISHED INSTRUCTION.

A. WHERE WINDOW STONE SILLS ARE DETERIORATED, CUT THE STONE SILLS AND REPLACE WITH GFRC.

REPLACE WITH SAND STONE TO MATCH EXISTING PROFILE. PIN AS INDICATED ON SCHEDULE.

B. NEW SILLS WILL BE FABRICATED OFFSITE AND CUT TO THE APPROPRIATE LENGTH. PIN AS INDICATED ON SCHEDULE. THE ENDS CAN BE TOOLED TO MATCH EXISTING ONCE INSTALLED. C. WINDOW SURROUND MOLDING: REMOVE DETERIORATED SECTIONS AS NEEDED AND

4. PROJECTIONS (BULL HEADS AND FRUIT) AT ELEVENTH FLOOR:

- A. ALL PROJECTING SANDSTONE AT TOP CORNICE WILL BE CHECKED FOR VIABILITY AND WHERE WEAK IT WILL TOOLED BACK TO SOUND SANDSTONE.
- B. AT SOME LOCATIONS IT WILL BE NECESSARY TO REPLACE THE SANDSTONE THAT WAS REMOVED BY FABRICATING NEW ARCHITECTURAL ELEMENTS OUT OF COLUSA SANDSTONE AND INSTALLING THEM AS DUTCHMAN PATCHES. PIN NEW PIECES AS DIRECTED.

5. WINDOWS:

- A. ALL LOOSE PAINT IS TO BE REMOVED (EXISTING PAINT WAS TESTED AND DOES NOT CONTAIN LEAD).
 - B. THE WOOD WINDOWS ARE TO BE SANDED AND PREPARED TO RECEIVE NEW PAINT. C. THE WOOD WINDOWS ARE TO BE PRIMED AND PAINTED USING ICI PAINT PRODUCTS IN
- ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. D. A PERIMETER BEAD OF DOW CORNING 795 SILICONE SEALANT IS TO BE INSTALLED TO THE NEWLY PAINTED (ONCE DRY AND CURED) WINDOWS AT THE TRANSITION TO SANDSTONE.

DRAWING INDEX

- G-001 TITLE SHEET AND PROJECT INFORMATION
- ELEVATIONS OF MONTGOMERY STREET FACADE
- A-501 DETAILS AND SECTION PROFILES

PROJECT DIRECTORY AND DESCRIPTION

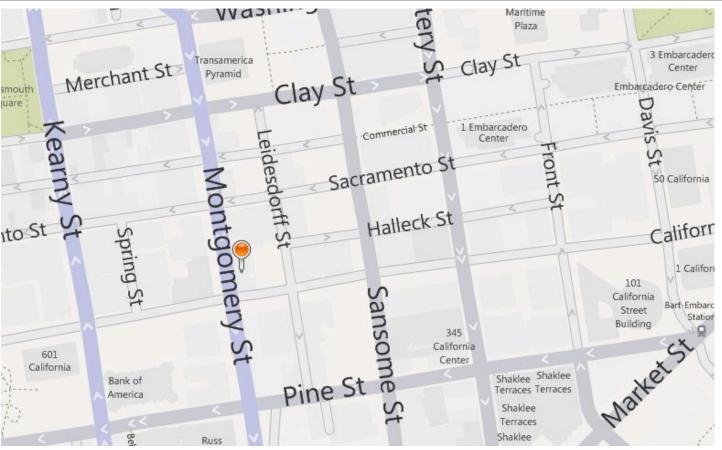
ARCHITECT:

NADIA ANIS, AIA FERRARI-MOE LLP.

55 SHAVER ST. SUITE 300 SAN RAFAEL, CA. 94901 P: (415) 458-3511 ex. **103** F: (415) 458-3512

DESCRIPTION:

FACADE RESTORATION OF AN 11 STORY, TYPE-A BUILDING, CONSTRUCTED IN 1901, LOCATED ON THE CORNER OF CALIFORNIA AND MONTGOMERY STREETS. WORK TO INCLUDE WATERPROOFING MEASURES, SANDSTONE RESTORATION AND PAINTING OF WINDOW TRIM. ALL REPAIRS TO BE DONE IN KIND, AND EXTENSIVE CARE TO BE TAKEN TO PRESERVE HISTORIC CONTEXT.



PROJECT GENERAL NOTES

ALL WORK SHALL CONFORM TO THE CURRENT ADOPTED VERSION OF THE UBC AND ANY LOCALLY ADOPTED CODES OR ORDINANCES.

THE INTENT OF THE DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ANY ONE SHALL BE AS BINDING AS REQUIRED BY ALL. IN CASE OF CONFLICT, THE MORE RESTRICTIVE REQUIREMENT SHALL GOVERN.

CONTRACTOR SHALL VERIFY EXISTING (E) CONDITIONS AND THOSE SHOWN ON THE DRAWINGS. CONTRACTOR SHALL NOTIFY ARCHITECT IF CONDITIONS VARY FROM THOSE SHOWN OR IF HIDDEN CONDITIONS EXIST WHICH WOULD BE DETRIMENTAL TO PROPER INSTALLATION.

DRAWINGS ARE BASED ON ORIGINAL DESIGN SET AND DO NOT NECESSARILY REFLECT AS-BUILT CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS, DIMENSIONS, AND QUANTITIES. EXACT QUANTITIES, LOCATIONS, AND MEASUREMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

DURING THE WORK, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS FOR ACCESS TO THE WORK (I.E. SWINGSTAGES, MAN LIFTS, AND/OR SCAFFOLDING, ETC.)

CONTRACTOR WILL BE RESPONSIBLE FOR ALL PERMITS

PROTECTION OF ALL HARDSCAPE (SIDEWALKS, DRIVEWAYS, ETC.) AND SOFTSCAPE (LANDSCAPE, IRRIGATION LINES, ETC.) IS REQUIRED DURING THE WORK.

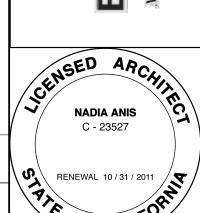
CONTRACTOR SHALL PROVIDE BARRICADES AND TEMPORARY DEBRIS BARRIERS, WHETHER SHOWN ON DRAWINGS OR NOT, AS NECESSARY TO PROTECT TENANTS AND OWNER'S EQUIPMENT, FURNISHINGS, OPERATIONS AND AREAS FROM DAMAGE, UNWARRANTED INTERRUPTION. UNAUTHORIZED ENTRY, CONSTRUCTION HAZARDS OR UNNECESSARY INCONVENIENCE DURING ALL OPERATIONS UNDER THIS CONTRACT.

CONTRACTOR SHALL KEEP MEANS OF EGRESS AND DRIVEWAYS CLEAR AT ALL TIMES.

CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS.



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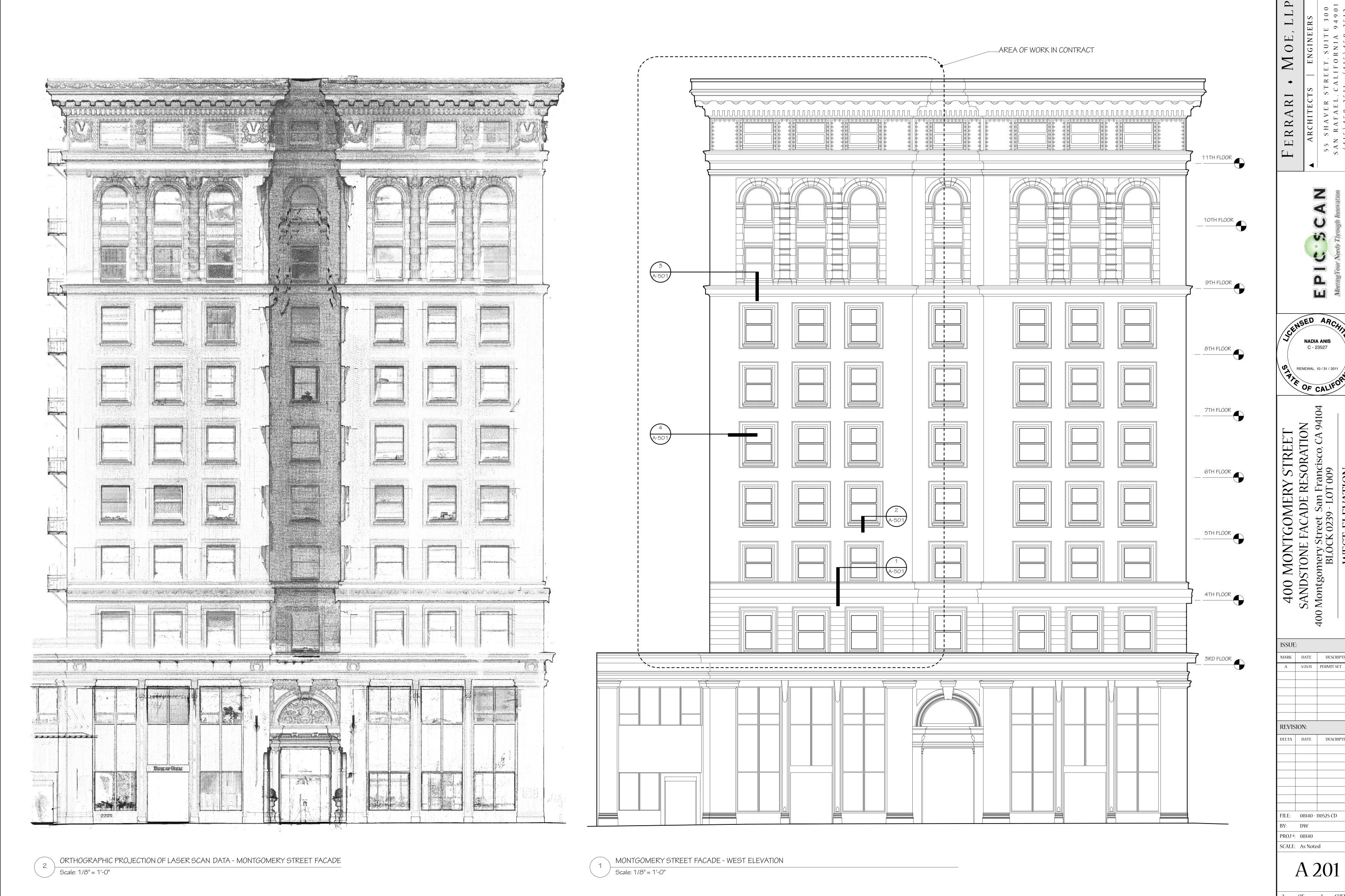
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OF 3 SHEETS



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400 MONTGOMERY STR SANDSTONE FACADE RESOR. 400 Montgomery Street San Francisc BLOCK 0239 - LOT 009

WEST ELEVATION

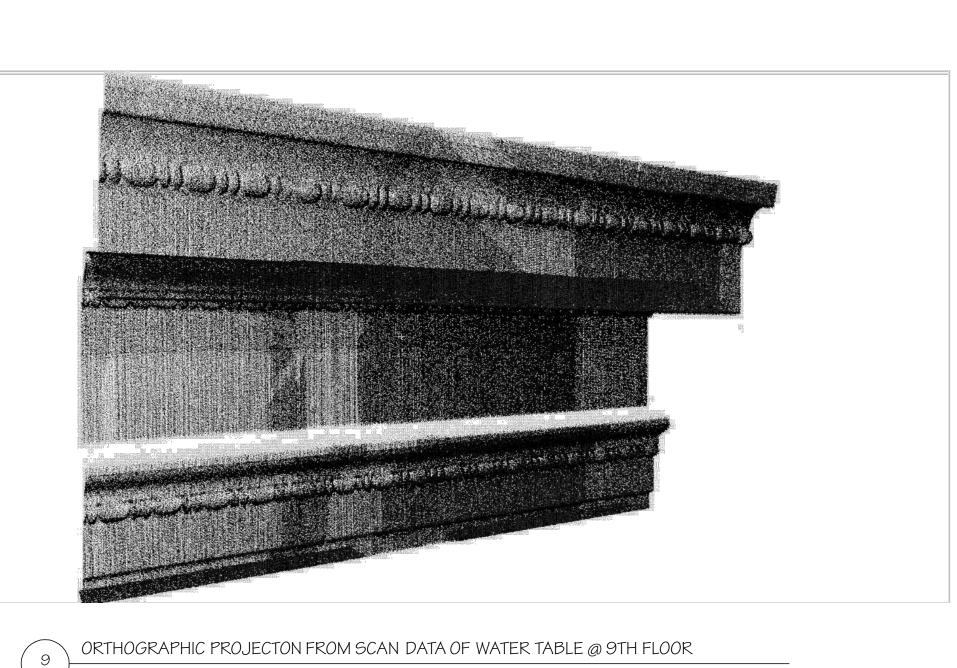
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OF 3 SHEETS



QUANTITY OF PINS END SPACE LENGTH (EQUALLY SPACED) 20" - 32" 20" 33" - 52" 3 20" 6" 53" - 71" 4 13.67" 19.67" 6" 72" - 91" 19.67" 6" 92" - 108" 19.2" 16" 6"

SPACING OF PINS BASED ON BLOCK LEGNTH

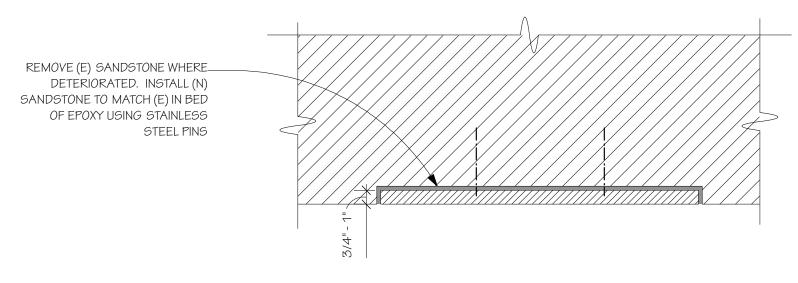
DUTCHMAN REPAIR, TYPICAL

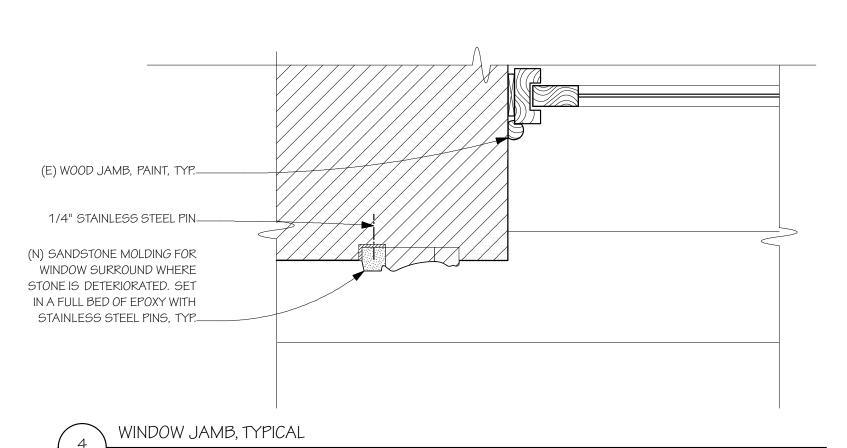
Scale: 2" = 1'-0"

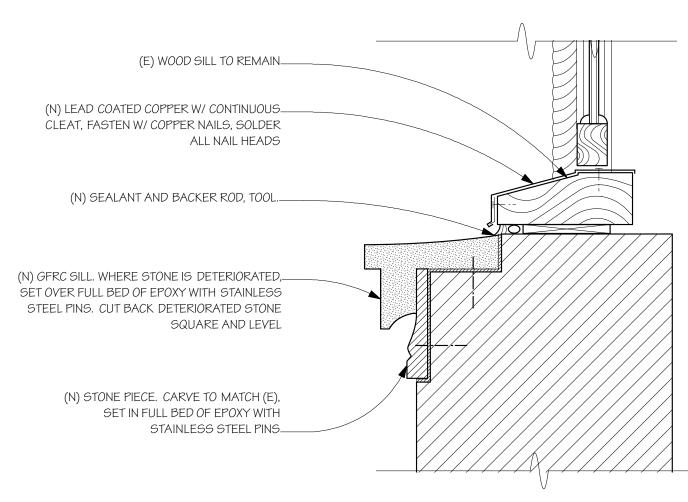
Scale: 1 1/2" = 1'-0"

WINDOW SILL, TYPICAL.

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

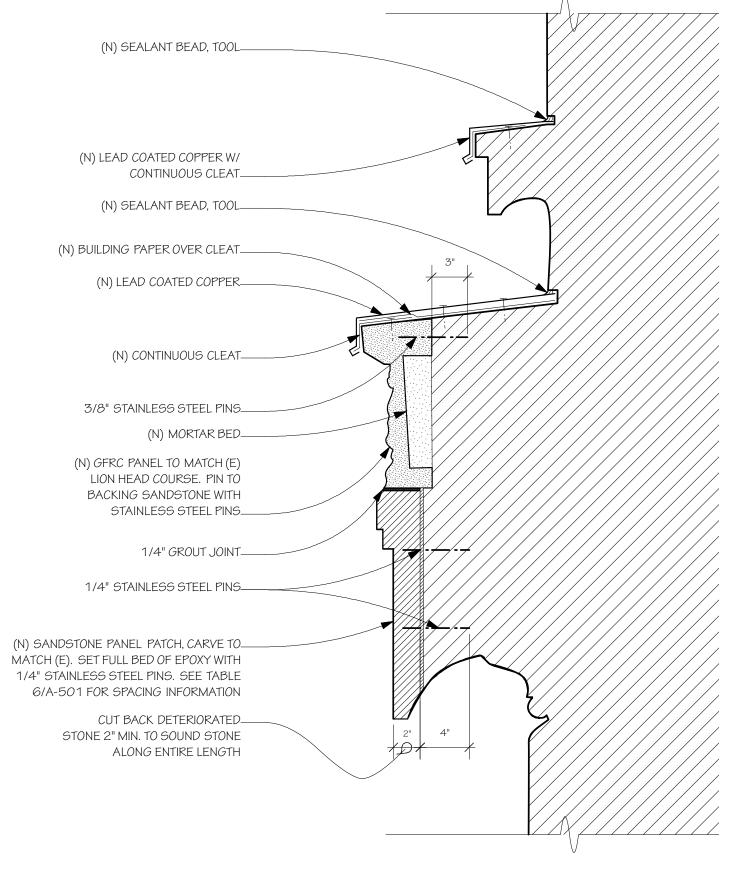




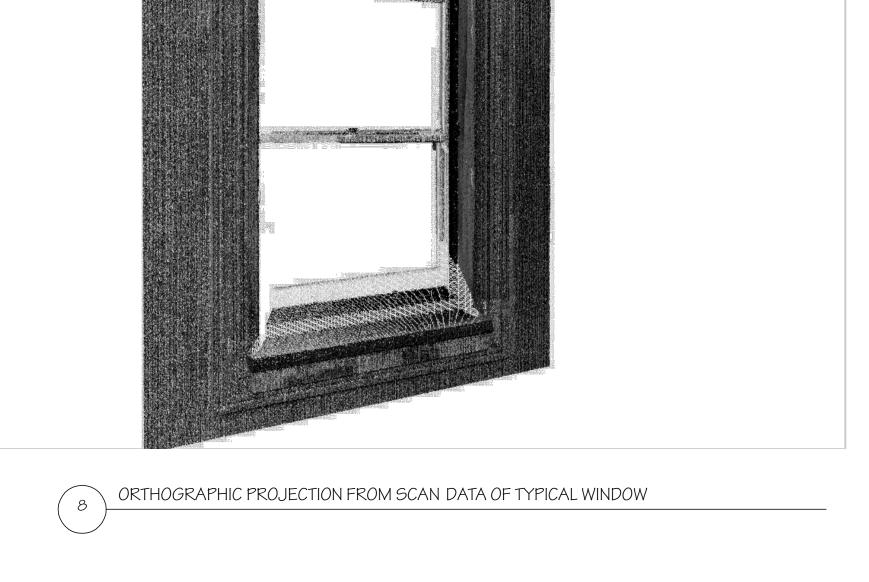


(N) LEAD COATED COPPER W/-CONTINUOUS CLEAT. NAIL AND SOLDER NAIL HEADS (E) REDWOOD SILL TO REMAIN_ (N) SEALANT W/ BACKER ROD,-TOOL, TYP. (E) SANDSTONE SILL. WHERE... SANDSTONE IS DETERIORATED, SET STONE WITH STAINLESS STEEL PINS (N) SEALANT BEAD, TOOL-(N) LEAD COATED COPPER W/_ CONTINUOUS CLEAT (N) BUILDING PAPER OVER CLEAT_

> 9TH FLOOR WATER TABLE AT WINDOW SILL Scale: 1 1/2" = 1'-0"



WATER TABLE AT LION HEADS - 4TH FLOOR



ORTHOGRAPHIC PROJECTION FROM SCAN DATA OF LION HEADS ABOVE 3RD FLOOR

OF 3 SHEETS

FILE: 08140 - 110525 CD

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RENEWAL 10/31/2011

400 MONTGOMERY STR SANDSTONE FACADE RESOR. 400 Montgomery Street San Francisc BLOCK 0239 - LOT 009

ISSUE:

REVISION:

A 5/25/11 PERMIT SET



17 October 2008

VIA E-Mail gjohnson@cacremco.comFAX US Mail

Gregory Johnson, RPA, FMA CAC Real Estate Management Co., Inc. 111 Sutter Street, Suite 350 San Francisco, CA 94104

Re: 400 Montgomery Street, San Francisco, CA - #08114

Subj: Scope of Work

Dear Greg:

Ferrari Moe met with Giampolini Courtney and Restoration Stone to agree on the best approach to repairing the failed Colusa Sandstone at 400 Montgomery. The following is the scope of work that was agreed upon as the best course of action aesthetically, structurally and monetarily as a long-term repair. Giampolini Courtney has prepared a spreadsheet that details quantities and locations which will supplement this scope of work.

I. GENERAL SCOPE OF WORK

Spalled and exfoliated stone in field of wall:

- a. Below third floor: Cut to square spalled and exfoliated stone to expose sound material and implement a dutchman repair with new Colusa sandstone.
- Above Third Floor: Cut spalled and exfoliated material to sound stone. Square edges to a depth of 3/8" minimum. Patch with Custom 45 Repair Mortar by Edison Coatings.

Cracks in field of wall:

 Open cracks 1/4" minimum to accept Edison Coating Custom 45 Repair Mortar to match existing stone.

Repointing:

 Rout out to depth of 1-1/2" cracked and deteriorated grout joint. Repoint in multiple lifts. Allow 100% repointing of all joints.



II. AREA SPECIFIC SCOPE OF WORK

1. Third Floor Projection/Water Table - Large Masonry Displacement:

- Remove existing shelf angles that were installed to temporarily secure sandstone failures.
- c. Remove damaged Colusa sandstone.
- Investigate reason for failure. Corroded steel anchors or pins will likely be encountered.
- Remove any corrosion from steel and apply Sika Armatech 110 in accordance with manufacturers recommendations.
- f. Install new stainless steel all thread hangers or anchors to hang new stone. Anchors to be embedded a minimum of 5" using structural epoxy by CIA, Sika or Hilti.
- Fabricate and install new Colusa sandstone to match existing.
- Note: Provide alternate pricing for Copper or Stainless Steel coping per scope outlined below for water table at fourth floor.

Fourth Floor Lion Heads and Shelf Water Table:

- a. The lion heads will be removed by slicing back 6" at the horizontal plane and just beneath the lion heads at the grout joint. This will create a shelf for the installation of new GFRC lion heads as described below.
- b. New GFRC lion head casting to be created by an outside source.
- c. Following the removal of the existing lion heads we will expose additional Colusa sandstone failures. Some are already apparent. Allow for 30% patching replacement at the remainder of the water table.
- d. The new GFRC lion head shelf will be anchored in place using stainless steel allthread set in structural epoxy at 12" on center.
- All additional patching required will also be anchored using stainless steel allthread and structural epoxy.
- f. Install new copper or stainless steel coping at the fourth floor water table. The coping will be keyed into a kerf reglet and set in sealant.

Secondary Fourth Floor Water Table above Lion Head Shelf:

- All deteriorated spalled or exfoliated existing Colusa sandstone is to be removed.
- Prepare and patch areas where sandstone was removed using Edison Custom System 45 in accordance with manufacturers recommendations.



- c. Cracked or spalled areas with loose sandstone exist beyond the horizontal plane. It was discussed and replacement with new Colusa sandstone will be more cost effective than GFRC and will have the longevity that a Custom System 45 patch cannot provide. Allow 30% spall replacement at skirt below the horizontal plane.
- d. Install new copper or stainless steel coping over the secondary 4th floor water table. The coping will keyed into a kerf reglet and set in sealant.

4. Ninth Floor Water Table:

- a. All deteriorated spalled or exfoliated existing Colusa sandstone is to be removed.
- b. Prepare and patch areas where sandstone was removed using Edison Custom System 45 in accordance with manufacturers recommendations.
- c. Cracked or spalled areas with loose sandstone exist beyond the horizontal plane. It was discussed and replacement with new Colusa sandstone will be more cost effective than GFRC and will have the longevity that a Custom System 45 patch cannot provide. Allow 30% spall replacement at skirt below the horizontal plane.
- d. Install new copper or stainless steel coping over the secondary 4th floor water table. The coping will keyed into a kerf reglet and set in sealant.

Eleventh Floor Water Table:

- All deteriorated spalled or exfoliated existing Colusa sandstone is to be removed.
- Prepare and patch areas where sandstone was removed using Edison Custom System 45 in accordance with manufacturers recommendations.
- c. Cracked or spalled areas with loose sandstone exist beyond the horizontal plane. It was discussed and replacement with new Colusa sandstone will be more cost effective than GFRC and will have the longevity that a Custom System 45 patch cannot provide. Allow 30% spall replacement at skirt below the horizontal plane.
- d. Install new copper or stainless steel coping over the secondary 4th floor water table. The coping will keyed into a kerf reglet and set in sealant.

6. Isolated Cracks Without Loose Sandstone:

- a. We have observed isolated cracking at water tables and window lintels where the adjacent sandstone is not loose. At these locations the crack is to be stitched together using stainless steel all thread anchors set in structural epoxy.
- b. The face of the crack should be opened 1/4" minimum to accept Edison Custom Repair Mortar 45 compound to match existing substrates.



7. Window Sills:

- a. Many of the existing window sills are deteriorated beyond repair and will require replacement. The sills vary in length. For that reason it will be more cost effective to fabricate the sills from sandstone in lieu of GFRC.
- b. The existing deteriorated sills are to be removed to 1/2" beneath the existing wood window sills.
- c. New sills will be fabricated offsite and cut to the appropriate length. The ends can be tooled to match existing once installed.
- d. The new sill pieces will be keyed in beneath the existing wood window sill and set in a bed of sealant. An additional face bead of sealant will be installed to prevent any water migration beneath.

Vertical Corners:

- a. The existing Colusa sandstone corners at the full height of the structure are exfoliating. Most locations can be repaired by retooling (removing approximately 1/2" of sandstone back to sound sandstone).
- b. Where retooling is not adequate new pieces or "Dutchman" patches will be fabricated and installed as described earlier in this report.

9. Projections (Bull Heads and Fruit):

- a. At many areas of the bull heads and fruit projections the existing Colusa sandstone has lost its integrity due to migration of water. All projecting sandstone will be checked for viability and where weak it will be removed and retooled back to sound sandstone.
- b. At some locations it will be necessary to replace the sandstone that was removed by fabricating new architectural elements out of Colusa sandstone and installing them as Dutchman patches. These new elements will be pinned in place using stainless steel allthread and structural epoxy.

10. Windows:

- a. Very little dry rot was observed at the existing wood windows. Where dry rot is encountered the areas will be restored using epoxy wood consolidant and filler as manufactured by Smith. The Smith wood restoration epoxy is to be installed according to manufactures installation recommendations.
- All loose paint is to be removed.
- c. The wood windows are to be sanded and prepared to receive new paint.
- d. The wood windows are to be primed and painted using ICI paint products in accordance with the manufacturers recommendations.



e. A perimeter bead of Dow Corning 795 silicone sealant is to be installed to the newly painted (once dry and cured) windows at the transition to sandstone.

Please call if you have any questions.

Sincerely,

FERRARI MOE, LLP

Casey Walters Project Manager

cc: Mike Courtney, Giampolini Courtney - mcourtney@giampolini.com

Jefferson Mayo, Giampolini Courtney - jmayo@giampolini.com

Pete Neilson, Giampolini Courtney - pneilsen@giam-court.com

Megan Thompson, CAC Real Estate Management - mthompson@cacremco.com

Nadia Anis, Ferrari Moe - nanis@ferrari-moe.com

SECTION 04 42 00

COLUSA SANDSTONE RESTORATION

PART 1 - GENERAL

1.1. SECTION INCLUDES

- A. Facade Cleaning
- B. Repointing
- C. Patching
- D. Replacement of deteriorated Colusa Sandstone units with GFRC
- E. Sealant
- F. Painting of Windows
- G. Reference attached spreadsheet for scope of work and quantities.

1.2. REFERENCES

- A. ACI 530 Building Code Requirements for Masonry Structures.
- B. ACI 530.1 Specifications for Masonry Structures.
- C. MIAC International Masonry Industry All-Weather Council: Recommended Practices and Guide Specification for Cold Weather Masonry Construction.
- D. MIAC International Masonry Industry All-Weather Council: Recommended Practices and Guide Specification for Hot Weather Masonry Construction.
- E. MNL-128-01 Recommended Practice for Glass Fiber Reinforced Concrete

1.3. SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Shop Drawings: Indicate attachment method of new pieces, and temporary or permanent support.
- C. Shop Drawings: Indicate profiles for new copings to be installed at water tables.
- D. Product Data: Provide data on cleaning compounds, paint stripper, patching compounds, and repair material.
- E. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.
- F. Material Safety Data Sheets for paint strippers and solvent containing compounds.
- G. Submit contractors qualifications and site foreman's qualification as specified under 1.6.

1.4. QUALITY ASSURANCE

- A. Maintain one copy of each document on site.
- B. Maintain copies of MSDS sheets of approved products on site at all times.
- C. Convene one week prior to commencing work on this section. Notify Architect with advance notice.
- D. Where manufacturer's published instruction varies from these specifications, contractor shall follow the most stringent requirements.

1.5. QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum ten years documented experience in similar projects.
- B. Material shall have a minimum 10-year successful performance history for similar projects.
- C. Pre-Construction Conference: Contractor to perform work under this section shall be a company specializing in restoration work with ten years of documented experience.
- D. Manufacturer's technical representative with five years minimum experience with specified product shall attend the pre-construction conference and shall be present on site during the mock-up installation.
- E. Contractor shall compensate manufacturer as necessary to provide the specified site participation, field training and monitoring.
- F. Contractor/Applicator shall have a minimum of 10 years documented experience in sandstone restoration with a minimum of 5 projects similar in size within the last 5 years.
- G. The contractor shall provide a site foreman with 10 years documented experience in sandstone and masonry repairs. Contractor shall provide 5 references for the foreman for approval by Owner and Architect prior to proceeding with work under this section.
- H. Contractor to use only those workers thoroughly skilled and specifically trained in the techniques of sandstone and masonry restoration, demonstrating to the satisfaction of the Architect their ability to properly install work under this section in accordance with manufacturer's published instructions, and these specifications.

1.6. MOCK-UP

- A. Provide mock-ups of all phases of the sandstone restoration under provisions of Section 01 40 00.
- B. Provide one mock-up for each type of treatment specified under this section, including hot water cleaning, patching, repointing, retooling of existing sandstone to remain, GFRC replacement pieces (all types), sealant and painting of window frames.
- C. Locate mock-ups at locations selected by the Architect.

- D. Acceptable mock-ups and method of installation will become the standard for work of this section.
- E. Acceptable mock-ups may remain as part of the work.

1.7. PRE-INSTALLATION CONFERENCE

- A. Convene one week prior to commencing work of this section, under provisions of Section 01 31 00.
- B. Notify Architect in writing with date and time of pre-installation conference.
- C. Require attendance of all parties directly affecting work of this section, including technical representative of the manufacturer of the patching and repair mortar.
- D. Review conditions and procedures of installation, and coordination with related work.

1.8. DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01 60 00.
- B. Deliver materials in their original containers with clear labels.
- C. Store material off the ground and protect against any moisture with adequate waterproof covering.
- D. Store coating stripping materials in manufacturer's packaging.
- E. Keep empty containers and bags for quantity tracking by the Architect.

1.9. ENVIRONMENTAL REQUIREMENTS

- A. Hot water clean colusa sandstone surfaces only when air temperatures are above 40 degrees Fahrenheit (4 deg. C) and will remain so until sandstone unit has dried out, but for not less than 7 days after completion of cleaning.
- B. Do not perform any patching unless air temperatures are between 50 degrees Fahrenheit (10 deg. C) and 90 degrees Fahrenheit (32 degrees C) and will remain so for at least 48 hours after completion of work.

PART 2 PRODUCTS

2.1. STRIPPING AND CLEANING MATERIALS

A. Hot Water for Cleaning: Clean Potable Water

2.2. MORTAR MATERIALS

- A. Repointing mortar shall be a pre-mixed, pre-colored cement lime based mixture formulated to comply with the requirements of ASTM C-270 Type N mortar.
 - 1. SPEC-JOINT 46, as manufactured by Edison Coatings, Inc., Plainville, CT. Phone (800) 697-8055.

2.3. PATCHING MATERIAL

- A. Patching material shall be a premixed, cementitious material with acrylic latex-modifier formulated to match the color and texture of the existing sandstone. Material must be vapor permeable, frost and salt resistant, shall develop direct tensile bond strength of 200 psi minimum, shall exhibit less than 0.06% drying shrinkage, and shall have a linear coefficient of thermal expansion of 0.000005 to 0.000008 inches/inch per degree Fahrenheit. Material shall be compatible with substrate, including but not limited to, porosity, tensile, and compressive strength. Modulus of elasticity shall be 50,000 to 100,000 psi. Non-latex mortars shall be unacceptable.
 - 1. "CUSTOM SYSTEM 45" by Edison Coatings, Inc., Plainville, CT (800) 697-8055.
 - 2. Thin-Section glaze-spall repair and surface profiling of deep repairs "THIN FILL 55" by Edison Coating, Inc.

2.4. GLASS FIBER REINFORCED CONCRETE (GFRC)

A. Materials:

1. Aggregates:

- a. Back-up Mix: Washed and dried silica sand or other sand having a history of successful use in glass-fiber-reinforced precast concrete panel construction; passing through a No. 20 sieve.
- b. Facing Mix: Fine and course aggregate for face mix shall conform to ASTM C 33 except for gradation. Aggregates shall be clean, hard, strong, durable, inert, and free of staining and deleterious materials. Provide aggregate in colors and sizes as required to achieve the panel finish texture and colors indicated on the Drawings.
- Portland Cement: ASTM C 150, Type I, II or III. Use the same type, brand and color of portland cement for all panels and shapes. Color shall be as required to obtain the panel facing color indicated.

3. Admixtures:

- a. Air-entraining admixtures, ASTM C 260. ASTM C260, ASTM C494, ASTM C618 or acrylic thermoplastic copolymer dispersion conforming to PCI MNL-130, Appendix E.
- b. Polymer Compound: Conform to requirements of PCI MNL-128, Appendix L.
- 4. Coloring Agent: ASTM C 979; shall have no adverse effects to glass-fiber-reinforced precast concrete panel set and strength; shall be stable at high temperature; and shall be sunlight fast and alkali-resistant. Color shall be as required to obtain panel facing color selected.
- 5. Water for Mixing Concrete: Use potable water.

- 6. F. Glass Fiber: Conforming to PCI MNL-130, Appendix D and specifically designed to be
- 7. compatible with the aggressive alkaline environment of portland cement based composites
- 8. or fibers with a history of successful use in portland cement based composites that has been modified to be compatible with the fiber.

2.5. REINFORCING MATERIALS

- A. Pins/Threaded Stainless Steel: Type and size are specified herein and as indicated on the Contract Drawings, if not indicated, as per patching materials manufacturer's recommendation. Anchors and dowels shall be 12" minimum and be fabricated from ANSI Type 302/304 stainless steel.
- B. Mechanical anchors and dowels (for deep repairs and overhanging repairs): Stainless steel threaded rod (ASTM F-593) with a diameter as indicated on Contract Drawings, bent and cut to lengths required to achieve embedments shown on Contract Drawings. Cut end of rod square.
- C. Adhesive: Adhesive shall be a two component, flexibilized epoxy gel, with minimum 4% elongation, 300 psi direct tensile bond strength, 10,000 psi tensile strength. Product shall be applicable to metals, masonry, concrete and other substrates as required, and shall be appropriate for use at ambient temperature from zero to 100 degrees Fahrenheit.
 - 1. "FLEXI-WELD 520T", as manufactured by Edison Coatings, Inc., Plainville, CT (800) 697-8055

2.6. SHEET METAL

- A. Freedom Gray coated copper as manufactured by Revere conforming to ASTM B 370. Freedom Gray is copper coated with an alloy consisting with a zinc/tin alloy that is approximately 0.5 mils thick. Composition of the alloy shall be approximately 50% zinc and 50% tin with trace elements controlled for durability, corrosion resistance and color. The zinc/tin alloy shall be applied by the hot dip process. All zinc/tin alloy coated copper shall have temporary, degradable pre-weathered coating to minimize water stains during transit and storage and provide initial weathered appearance.
- B. Solder: Where used on zinc/tin alloy coated copper, solder shall conform to ASTM specification B32 and shall be pure tin or lead free, high high-tin.

2.7. RUST INHIBITIVE COATING

A. Anti-corrosion, high strength two component epoxy adhesive for bonding concrete.

Physical Properties	Test Method	<u>Data</u>
Tensile Strength (After 7 days)	ASTM D	638 4000 psi
Compressive Strength	ASTM D	695 8500 psi
Flexural Bond Strength	ASTM C	293 570 psi

B. "ARMATEC 110 EpoCem", as Manufactured by Sika Corporation, or approved equal.

2.8. SEALANT

A. Dow Corning 795 one-part silicone sealant. To be installed after the window frames have been painted.

PART 3 EXECUTION

3.1. EXAMINATION

A. Verify that surfaces to be cleaned or restored are ready for work of this section.

3.2. PROTECTION

- A. Protect all surrounding surfaces against damage or disfiguration by work of this section.
- B. Protect properties, vehicles against damage from falling patching materials, etc.
- C. Immediately remove stains, efflorescence, or other excess resulting from the work of this section.
- D. Protect roof membrane and flashings from damage. Lay 1/2" plywood over taped plastic sheathing on roof areas to extend 6' from parapet, and on entire deck surfaces. Protect all areas exposed to foot traffic.
- E. Prevent sandstone patching materials from staining the face of adjacent sandstone or other surfaces to be left exposed. Immediately remove all patching materials that come in contact with such surfaces.
- F. Cover partially completed work when work is not in progress.
- G. Protect sills, ledges and projections from droppings.

3.3. CLEANING EXISTING COLUSA SANDSTONE

A. Clean the facade using hot moderately high pressure water (600 psi.). The cleaning with hot pressurized water is to be performed before any patching or replacement work commences so accurate color matches can be achieved. Following all work all facades are to be cleaned again using hot moderately pressurized water (final rinse).

3.4. REPOINTING

- A. Do not use power tools in removing existing mortar.
- B. Do not damage existing Colusa Sandstone.
- C. Cut joint to a 1-1/2" depth.
- D. When cutting is complete, remove dust and loose material by brushing then with air jet.
- E. Pre-moisten joint and apply mortar specified in Section 04 05 13. Pack tightly in maximum 1/2 layers. Form a smooth, compact joint to match existing profile.
- F. Moist cure for 72 hours.

3.5. LOCATE AND MARK AREA TO BE REPAIRED/RESTORED

- A. Work areas are approximately shown on drawing. Field verify location, size and number.
- B. Mark locations using chalk.
- C. Review areas marked at each drop with Architect prior to proceeding with patching repairs.

3.6. WORKMANSHIP OF PATCHING MATERIAL

- A. Patching material workmanship shall comply with all applicable recommendations of material manufacturer's written specifications and requirements and/or as modified in this specification.
- B. Mixing of patching material: Mix the patching material in accordance with manufacturer's printed instructions.
- C. Do not use any additives, such as bonding agents, accelerators, or retarders, in the patching material without prior written approval from the manufacturer and the Architect.
- D. Patching and repair work for spalled and deteriorated materials shall be done in strict accordance with manufacturer's printed instructions and as specified herein.
- E. At areas to receive patches, remove all loose, spalled and deteriorating materials.
- F. Under surface sapling, cut away an additional 1/4 to 1/2 inch of the substrate as needed to provide a completely sound substrate that is solid and stable.
- G. "Sound" substrate with a hammer to verify its integrity.
- H. Remove any soil, mortar, and other debris or foreign material from areas to receive patch.
- I. Remove rust on the exposed reinforcements by wire brushing.
- J. Remove reinforcements that are severely corroded, loose or are of no structural value. Removal shall be done upon evaluation of the field condition and approval by the Architect. Provide new supplemental reinforcing bars where required. Repair damage to substrate resulting from removal by patching with the approved patching material.
- K. Cut out sections shall be squared off at the edges. Do not over cut corners of the patch; stop short of corner and chip out remainder by hand without damaging surrounding sandstone. Do not allow any feathered edges in the patch areas.
- L. Roughen the substrate surface as necessary to achieve the surface roughness required by manufacturer for good bond, but do not damage the substrate surface.
- M.Prime all substrate of sandstone to receive patching material with primer coat of System 45 A liquid. Avoid latex rundown on areas not being patched.
- N. Apply patching compound within 4-8 hours of priming.

3.7. PATCHING

- A. Prepare and mix patching material in accordance with manufacturer's directions.
- B. Use a mortar mixer or a slow sped drill mixer in mixing the parching material.
- C. Do not mix more material than could be applied in fifteen minutes. Discard unused material which is no longer workable.
- D. Patching material shall be applied by trowel, casting-in-place or other techniques recommended by materials manufacturer for each specific field condition.
- E. Air, surface and product temperature must all be above minimum temperature of 50 degrees F (10 degrees C) at time of application and must be maintained above that minimum until product had dried thoroughly.
- F. Apply patching material in one layer or several layers according to the depth of the repairs.
- G. Comply with manufacturer's instructions when applying multiple layers for thickness of each layer, setting-up time for each layer, surface preparation between layers, etc., to ensure sound adhesion between layers.
- H. Build up repairs about 1/4" short of their final profile, allow to fully dry, and then install a final lift of uniform depth.
- I. Where shaping or carving are required, the final application of repair mortar shall be at least 1/4" over the desired surface level. Do not sponge float the patch.
- J. Under hot conditions, as directed by manufacturer, moisten repaired areas, cover and cure in accordance with manufacturer's directions.
- K. After the patch begins to set, it shall be shaved down by screening it with a straight edge laid across the entire patch from sound stone to sound stone. After the patch sets further, the surface shall be tooled to replicate the texture, and detailing of the original surface.
- L. In hot, dry weather apply a light mist every 1 or 2 hours for the first day.
- M. To avoid rapid evaporation, do not patch in direct sunlight.
- N. Cover work with tarpaulin for a period of 48 hours.

3.8. PATCHING FOR DEEP OR OVERHANGING REPAIR

- A. At areas of large, deep and overhanging repairs the installation of mechanical keying or anchoring is required. The decision whether to anchor and how frequently to provide anchors shall be based on structural requirements, the conditions of the substrate, patch dimensions and weight, and the extent to which patch integrity will rely on self adhesion alone. Typical procedures are outlined in this section and shall be modified as recommended.
- B. Drill 1/4" to 1/2" diameter holes at various angles, spaced 4 to 6 inches apart in staggered rows. Clean holes using compressed, oil-free air.

- C. Insert threaded stainless steel rods into drilled holes. Span rods between holes, and extending far from substrate surface to be completely surrounded with patching material. At least 3/4" of patching material is placed over the rods, which are secured into the holes with the specified adhesive.
- D. Prepare and mix patching material in accordance with manufacturer's directions. Comply with all safety precautions, environmental limitations and work time limitations.
- E. Dampen surfaces immediately prior to application of patching material to create a good bond. Using a masonry brush, apply bond coat to patch area, working into corners, edges and profile. Apply bond coat only to area of patch that can be covered with patch material mix before bond coat dries. Work bond coat into pieces of the substrate and under and around mechanical anchors. Do not apply excess bond coat; do not leave standing in puddles on the substrate. Do not allow bond coat material to run down onto surfaces which will not be repaired.
- F. Apply patching material to deep sections by building up in a series of multiple lifts. Comply with manufacturer's instructions for thickness of each layer, setting-up time for each layer, and surface preparation between layers to ensure sound restoration. Work patching material into all corners of patch area and under and around mechanical anchors; including the existing coated reinforcements.
- G. To re-create original ornamentation, apply an extra-thick patch. Then after the patch is partially cured the patching material shall be carved, using molding profiles and/or straight edges to restore original ornamentation. In all cases, finish patch so that it is as indistinguishable as possible from adjacent surfaces.
- H. Clean any patching material residue from area surrounding the patch by sponging as many times as necessary with clean water. This should be done before patching material sets.
- I. Moisten, cover and cure repaired areas in accordance with manufacturer's directions.

3.9. CLEANING

- A. As work proceeds and on completion remove excess mortar, smears and droppings.
- B. Clean surrounding surfaces.
- C. Sandstone is to be cleaned with clean potable hot pressurized water (600 psi).

PART 4 SCOPE OF WORK FOR SPECIFIC COMPONENTS - GFRC

4.1. GENERAL

A. The bulk of the GFRC pieces that will be fabricated and installed will be "veneer" only. They will not carry any load. At the 3rd floor water table shelf angles have been installed to stabilize the water table which is displaced. At this location it will be necessary to stabilize the surrounding sandstone pieces with 1/2" stainless steel all thread anchors. The anchors will be installed to anchor the surrounding sandstone to the substrate behind (if possible).

- B. If an entire stone has to be removed and a load bearing stone replacement is necessary, the shell is to be fabricated using GFRC then filled with polymer concrete.
- C. For all Colusa Sandstone that will be replaced with GFRC a repeatable section must be restored to its original condition so a negative casting can be created.
- 4.2. THIRD FLOOR PROJECTION/WATER TABLE LARGE MASONRY DISPLACEMENT: Shelf angles have been installed at the corner of the Montgomery California Street corner beneath the 3rd floor water table to stabilize the displaced water table. These are to be removed.
 - A. Remove displaced Colusa sandstone.
 - B. Investigate reason for failure. Corroded steel anchors or pins will likely be encountered. Notify Architect/Engineer to examine exposed steel framing. Do not proceed until direction has been given.
 - C. Remove any corrosion from steel and apply Sika Armatech 110 in accordance with manufacturers recommendations.
 - D. Install new stainless steel all thread hangers or anchors to hang new stone. Architect/ Engineer will provide design for installation.
 - E. Custom fabricate and install new GFRC stone replacement units in accordance with MNL-128-01 (Recommended Practice for Glass Fiber Reinforced Concrete).
 - F. Install new lead coated copper flashing/coping at the third floor water table. The coping will be keyed into a kerf reglet, set in sealant and counter flashed.

4.3. FOURTH FLOOR LION HEADS AND SHELF WATER TABLE:

- A. A typical segment of the lion heads and fruit detail of sufficient length to cast a replacement water table is to be repaired to its original profile for negative casting.
- A. The lion heads will be removed by slicing back 6" at the vertical plane and just beneath the lion heads at the grout joint.
- B. Newly fabricated lion heads and fruit detailing are to be cast in GFRC for installation.
- C. Following the removal of the existing lion heads we will expose additional Colusa sandstone failures at the top of the water table. All non viable sandstone is to be removed and patched with Edison Custom 45 (non color matched).
- D. The new GFRC lion head shelf will be anchored in place using stainless steel all thread set in structural epoxy at 12" on center. (All GFRC work per MNL-128-01).
- E. Install new zinc/tin alloy coated copper flashing/coping at the fourth floor water table. The coping will be keyed into a kerf reglet, set in sealant and counter flashed.

4.4. SECONDARY FOURTH FLOOR WATER TABLE ABOVE LION HEAD SHELF:

A. All deteriorated spalled or exfoliated existing Colusa sandstone is to be removed.

- B. Prepare and patch areas where sandstone was removed using Edison Custom System 45 in accordance with manufacturers recommendations.
- C. Cracked or spalled areas with loose sandstone exist beyond the horizontal plane. GFRC replacement pieces are to be installed. Allow 30% spall replacement at skirt below the horizontal plane.
- D. Install new zinc/tin alloy coated copper flashing/coping at the secondary fourth floor water table. The coping will be keyed into a kerf reglet, set in sealant and counter flashed.

4.5. NINTH FLOOR WATER TABLE:

- A. All deteriorated spalled or exfoliated existing Colusa sandstone is to be removed.
- B. Prepare and patch areas where sandstone was removed using Edison Custom System 45 in accordance with manufacturers recommendations.
- C. Cracked or spalled areas with loose sandstone exist beyond the horizontal plane. GFRC replacement pieces are to be installed. Allow 30% spall replacement at skirt below the horizontal plane.
- D. Install new zinc/tin alloy coated copper flashing/coping over the secondary 9th floor water table. The coping will keyed into a kerf reglet, set in sealant and counter flashed.

4.6. ELEVENTH FLOOR WATER TABLE:

- A. All deteriorated spalled or exfoliated existing Colusa sandstone is to be removed.
- B. Prepare and patch areas where sandstone was removed using Edison Custom System 45 in accordance with manufacturers recommendations.
- C. Cracked or spalled areas with loose sandstone exist beyond the horizontal plane. GFRC replacement pieces are to be installed. Allow 30% spall replacement at skirt below the horizontal plane.
- D. Install new zinc/tin alloy coated copper flashing/coping over the secondary 11th floor water table. The coping will keyed into a kerf reglet, set in sealant and counter flashed.

4.7. ISOLATED CRACKS WITHOUT LOOSE SANDSTONE:

- A. We have observed isolated cracking at water tables and window lintels where the adjacent sandstone is not loose. At these locations the crack is to be stitched together using stainless steel all thread anchors set in structural epoxy.
- B. The face of the crack should be opened 1/4" minimum to accept Edison Custom Repair Mortar 45 compound to match existing substrates.

4.8. WINDOW SILLS:

A. Many of the existing window sills are deteriorated beyond repair and will require replacement. The sills vary in length. New GFRC replacement sills are to be fabricated and installed. It may be possible to manufacture long runs of the GFRC and cut to length.

- B. The existing deteriorated sills are to be removed to 1/2" beneath the existing wood window sills.
- C. The new sill pieces will be keyed in beneath the existing wood window sill and set in a bed of sealant. An additional face bead of sealant will be installed to prevent any water migration beneath.

4.9. VERTICAL CORNERS:

- A. The existing Colusa sandstone corners at the full height of the structure are exfoliating. Most locations can be repaired by retooling (removing approximately 1/2" of sandstone back to sound sandstone).
- B. Where retooling is not adequate new pieces consisting of GFRC are to be fabricated and installed.

4.10. PROJECTIONS (BULL HEADS AND FRUIT):

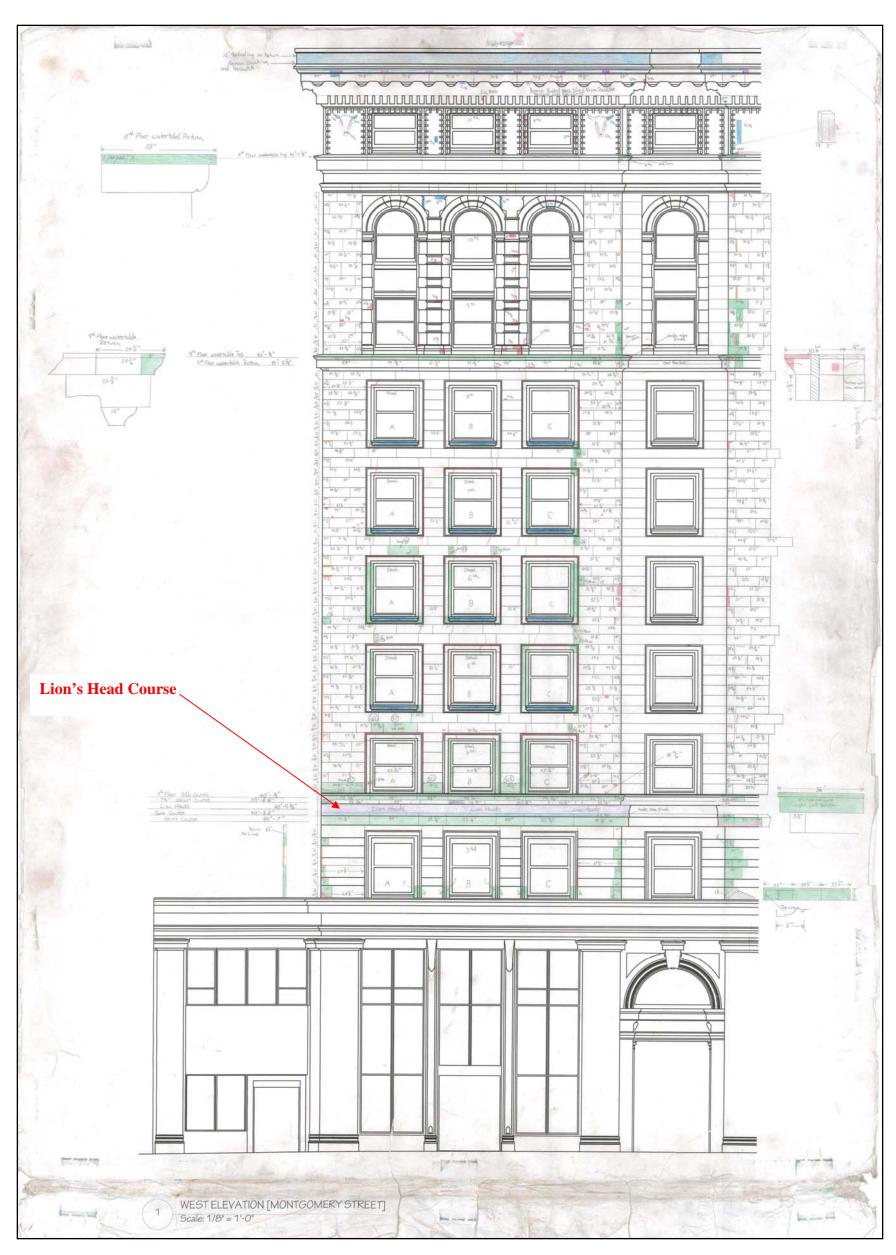
- A. At many areas of the bull heads and fruit projections the existing Colusa sandstone has lost its integrity due to migration of water. All projecting sandstone will be checked for viability and where weak it will be removed and retooled back to sound sandstone.
- B. At locations where extensive deterioration has occurred the existing sandstone will be tooled back to viable sandstone and patched using Edison Custom System 45.

4.11. WINDOWS:

- A. Very little dry rot was observed at the existing wood windows. Where dry rot is encountered the areas will be restored using epoxy wood consolidant and filler as manufactured by Smith. The Smith wood restoration epoxy is to be installed according to manufactures installation recommendations.
- B. All loose paint is to be removed.
- C. The wood windows are to be sanded and prepared to receive new paint.
- D. The wood windows are to be primed and painted using ICI paint products in accordance with the manufacturers recommendations.
- E. A perimeter bead of Dow Corning 795 silicone sealant is to be installed to the newly painted (once dry and cured) windows at the transition to sandstone.

- END OF SECTION -

400 MONTGOMERY STREET SANDSTONE FAÇADE RESTORATION PROJECT



Scope of Replacement:

Window Sills (sandstone): 12 sills (75% of sills)

Lion's Head Course (GFRC): <5% of façade masonry