



A. ROWE CONSTRUCTION CONSULTING, LLC
ARCHITECTURAL & ENGINEERING CONSULTANTS & PROJECT MANAGEMENT

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THIS REPORT IS A FIELD STRUCTURAL SITE ANALYSIS OF THE EXISTING CONDITIONS OF THE NORTH ELEVATION UNDERLYING WYTHES OF MASONRY AFTER THE STONE VENEER REMOVAL. SITE ANALYSIS ALSO INCLUDED THE EXTG. CONDITIONS OF THE 2 X 12 ROOF RAFTER ASSEMBLY & RECOMMENDATIONS FOR REMEDIATION.

35 N. BROADWAY, AURORA IL. 60505

CONTRACTOR: F.H. PASCHEN, S.N. NIELSEN & ASSOCIATES, LLC

5515 NORTH EAST RIVER ROAD, CHICAGO IL. 60656

ATTN: MR. DUNN

07/26/23

DDUNN@FHPASCHEN.COM

07/26/2023

FIELD STRUCTURAL SITE ANALYSIS EVALUATION REPORT

SUBJECT PROPERTY: 35 N. BROADWAY, AURORA IL. 60505

ATTN: Mr. JARED WITT, F.H. PASCHEN CONSTRUCTION

REPORT PREPARED BY: ANTHONY ROWE, NCBDC, CPBD, AIBD, #14-101

REVIEWED BY: DR. EUGENE MOJEKWU, PHD, S.E. #081-005180, ANTHONY ROWE, NCBDC, CPBD, AIBD # 14-101, and KEVIN E. SMITH, ALA, L.A. # 001-017537

Dear Mr. Dunn,

This Structural Site Analysis field site evaluation report is a review of the existing conditions of the bearing masonry wall wythes that are exposed after removal of the 4" stone veneer on the North elevation.

On 07/21/23, we performed a site Field evaluation for the subject property located at 35 N. Broadway, Aurora Il. 60505. At the time of inspection, F.H. Paschen's masonry sub-contractor had removed approximately 85% of the 4" stone veneer. We met with the Masonry sub-contractor and Mr. Mike Wowczuk and Mr. Dunn, from F.H. Paschen. Mr. Kevin Smith, myself (Anthony Rowe and Dr. Eugene Mojekwu via mobile phone conference reviewed and discussed the existing conditions. I sent Dr. Mojekwu photos as we discussed the various concerns. **We are recommending that the small balance of the 4" stone veneer be removed, and to prepare the remaining wythes of brick masonry that has been exposed, be prepared to receive the new CMU Exterior wythe of masonry from grade to the top of the parapet wall.**

MASONRY

Upon review of the exposed wythes of brick on the North elevation, it was noted that there was mortar wash out in numerous locations from grade to the top of the parapet wall, in ALL locations that were exposed.

Upon review of the exposed masonry, it was noted that an addition was added to the building at some point in the past. At the time of inspection, there was no sign of stress cracks or lateral movement; however there were wood inserts at various locations & elevations on this N.E. portion of the building. These appear to have been nail boards that were installed many years ago. **We are recommending removal of the wood 2 x 4 inserts, and replacing them with brick.**

We are also recommending that a control joint be placed at this location and every 20'-0" from grade to the top of the parapet when installing the repair CMU.

We are also recommending that the Masonry sub-contractor use Type "O" mortar when repairing the mortar wash out and replacing all spalled brick on the interior wythes of masonry. This should be done on ALL areas of interior wythes that are exposed. We are recommending that the mason contractor use 6" CMU that is to be slush filled from grade to the top of the parapet wall. The 6" CMU shall be installed using type "S" mortar and ladder wire every (2) courses of block. The CMU shall be tied to the existing brick wythe every (4) courses with 3 ½" Galvanized Dovetail ties. The ties shall be spaced 64" o.c.. The contractor shall also install vertical #4 bar 32" o.c.. The contractor shall have a 12" minimum Epoxy set embed of the #4 bar when starting from Grade. We are also recommending that the contractor replace ANY damaged wood lintels with New steel W8 x 18 steel lintels with a 3/8" x 14" steel plate welded to the bottom flange of the W8 x 18 with ¼" Fillet welds on both sides. The contractor shall install weep baskets @ ALL window locations and flashing. The contractor shall also install Flashing at grade with starter course of CMU.

See Details in Exhibit #2 and photos in Exhibit #3

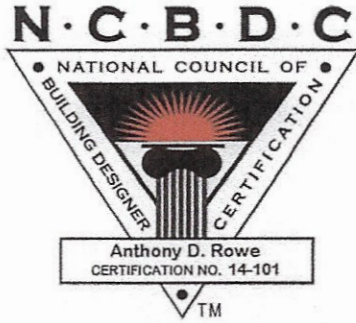
ROOF RAFTER ASSEMBLY

Upon review of the existing 2 x 12 Doug fir roof rafter assembly and the existing 2 x 6 ceiling joist assembly, it was noted as in previous reports, the existing Doug Fir rafters are OVER SPANNED for the 22'-0" of Live & Dead Loads of 45psf for Roof Load. **See calculations in Exhibit #1.** The existing 2 x 6 ceiling joists are missing in some areas and are present other areas. The existing 2 x 6 ceiling joists are also assumed to Doug Fir based on the age of the building. The existing 2 x 6 ceiling joists are supporting finished ceiling collateral load. At the time of inspection, it was noted that upon removal of the parapet wall, some of the 2 x 12 rafters were water damaged at the bearing Fire Cut ends of the member that bear into the masonry. The same type of water damage was exhibited on the fire cut ends of the 2 x6 ceiling joists. **See photos in Exhibit #3. We are recommending that ALL water damaged Fire Cut ends of the ceiling Joists and roof rafters be repaired, and that ALL 2 x 12 Roof rafters be sistered with NEW 2 x 12 SELECT STRUCTURAL DOUG FIR that is to be bolted the existing member per details in Exhibit #2. This will increase the load capacity as a built up member.**

See Calculations in Exhibit 1, Details in Exhibit #2, and Photos in Exhibit #3

Anthony Rowe EXP. 3/17/24

Anthony Rowe, NCBDC, CPBD, AIBD #14-101



Kevin E. Smith, ALA, L.A. # 001-017537



Eugene C. Mojekwu
Expires 11/30/2024

EXHIBIT #1

STRUCTURAL CALCS RE: ROOF JOIST
ASSEMBLY COMPRISED OF EXTG, 2x12
DOUG. FIR & SISTERED WITH NEW
2x12 DOUG FIR SELECT STRUCTURAL

DESIGN CRITERIA - EXTG 2x12
WITHOUT
SISTERED
MEMBER

EXTG. 2x12 DOUG FIR RATTERS

SPACING: 16" O.C. OR 1.33

$$I^4 = 178$$

$$S^3 = 31.5$$

* ALLOWABLE FB FOR SELECT STRUCTURAL DOUG FIR
IS 1550 OR LESS PER A. I. T. C. 4TH EDITION.
(AMERICAN INSTITUTE OF TIMBER CONSTRUCTION)

LIVE LOAD + DEAD LOAD = 45 psf.

LONGEST SPAN: 22'-0"

* EXTG. ALLOWABLE FB FOR EXTG. MEMBERS CALC. @ ALLOWED 1000 psi

$$W_T = 1.33(45) = 59.85$$

$$M = 59.85(484/8)$$

$$M = 59.85(60.5)$$

$$M = 3,620 \text{ ft. lbs}$$

$$M = 43,451 \text{ in. lbs}$$

$$F_b = 43,451 / 31.5$$

$$F_b = 1379.4$$

* ALLOWABLE FB FOR EXTG. DOUG FIR #2 OR BETTER
ASSUMED IS 1000 PSI OR LESS.

THUS 1379 > 1000 SO, EXTG. 2x12 @ 22'-0" "NOT OK"

SEE PAGE #2 FOR SISTERED MEMBERS

EXHIBIT #2

A. Rowe Construction Consulting, LLC
 NCBDC, CPBD, AIBD #14-101

BeamChek v2017 licensed to: A.Rowe, Construction Consulting Reg # 8101-1600

35 N. Broadway, Aurora IL

FOR REPLACEMENT OF 1ST FL. DOOR LINTEL - IF DOOR IS TO REMAIN.

Date: 7/25/23

Selection **W 10x 17 36 ksi Wide Flange Steel** Lateral Support: Lc = 4.2 ft max.

Conditions Actual Size is 4 x 10-1/8 in.
 Min Bearing Length R1= 0.8 in. R2= 0.8 in. (1.0) DL Defl= <0.01 in.Recom Camber= 0.01 in

Data

Beam Span	5.0 ft	Reaction 1 LL	2500 #	Reaction 2 LL	2500 #
Beam Wt per ft	17.0 #	Reaction 1 TL	5668 #	Reaction 2 TL	5668 #
Bm Wt Included	85 #	Maximum V	5668 #		
Max Moment	7084 #'	Max V (Reduced)	N/A		
TL Max Defl	L / 240	TL Actual Defl	L / >1000		
LL Max Defl	L / 360	LL Actual Defl	L / >1000		

Attributes

	Section (in ²)	Shear (in ²)	TL Defl (in)	LL Defl
Actual	16.20	2.43	0.01	<0.01
Critical	3.58	0.39	0.25	0.17
Status	OK	OK	OK	OK
Ratio	22%	16%	5%	4%

Values

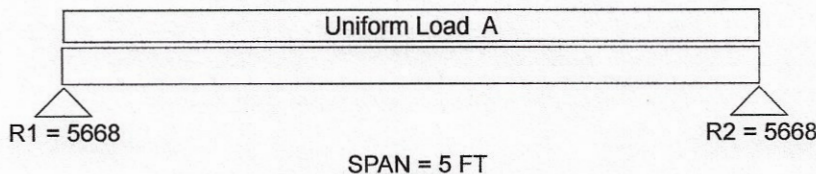
	Fb (psi)	Fv (psi)	E (psi x mil)
Ref. Value Fy	36000	36000	29.0
Adjusted Values	23760	14400	29.0

Adjustments YP Factor, Lc 0.66 0.40

Loads Uniform LL: 1000 Uniform TL: 2250 = A

NOTE:

IF 1ST FLOOR DOOR ON N. ELEVATION IS NOT TO REMAIN, CONTRACTOR MAY SEAL DOOR OPENING WITH 10" SIUSK FILLED CMU & 6" SIUSK FILLED CMU WITH # 4 VERTICAL BAR. BAR SHALL BE MIN. EPOXY EMBED INTO FOUNDATION 6" AND 16" O.C. BAR SHALL EXTEND TO TOP OF DOOR OPENING, CONTRACTOR SHALL INSTALL LADDER WIRE EVERY (2) COURSES.



Uniform and partial uniform loads are lbs per lineal ft.

A. Rowe Construction Consulting, LLC
 NCBDC, CPBD, AIBD #14-101

BeamChek v2017 licensed to: A.Rowe, Construction Consulting Reg # 8101-1600

35 N. Broadway, Aurora IL

FOR REPLACE OF 2ND & 3RD FLOOR WOOD LINTEL

Date: 7/25/23

Selection **W 8x 18 36 ksi Wide Flange Steel** Lateral Support: Lc = 5.5 ft max.

Conditions Actual Size is 5-1/4 x 8-1/8 in.

Min Bearing Length R1= 0.8 in. R2= 0.8 in. (1.0) DL Defl= <0.01 in.Recom Camber= 0.01 in

Data

Beam Span	5.0 ft	Reaction 1 LL	2500 #	Reaction 2 LL	2500 #
Beam Wt per ft	18.0 #	Reaction 1 TL	5670 #	Reaction 2 TL	5670 #
Bm Wt Included	90 #	Maximum V	5670 #		
Max Moment	7088 #	Max V (Reduced)	N/A		
TL Max Defl	L / 240	TL Actual Defl	L / >1000		
LL Max Defl	L / 360	LL Actual Defl	L / >1000		

Attributes

	Section (in ³)	Shear (in ²)	TL Defl (in)	LL Defl
Actual	15.20	1.87	0.02	<0.01
Critical	3.58	0.39	0.25	0.17
Status	OK	OK	OK	OK
Ratio	24%	21%	7%	5%

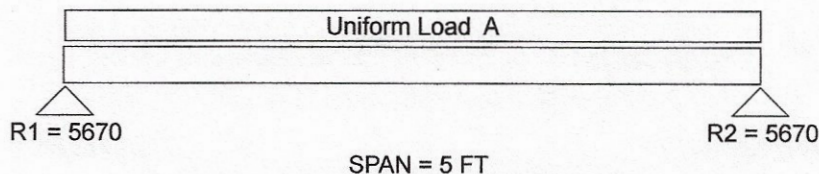
Values

	Fb (psi)	Fv (psi)	E (psi x mil)
Ref. Value Fy	36000	36000	29.0
Adjusted Values	23760	14400	29.0

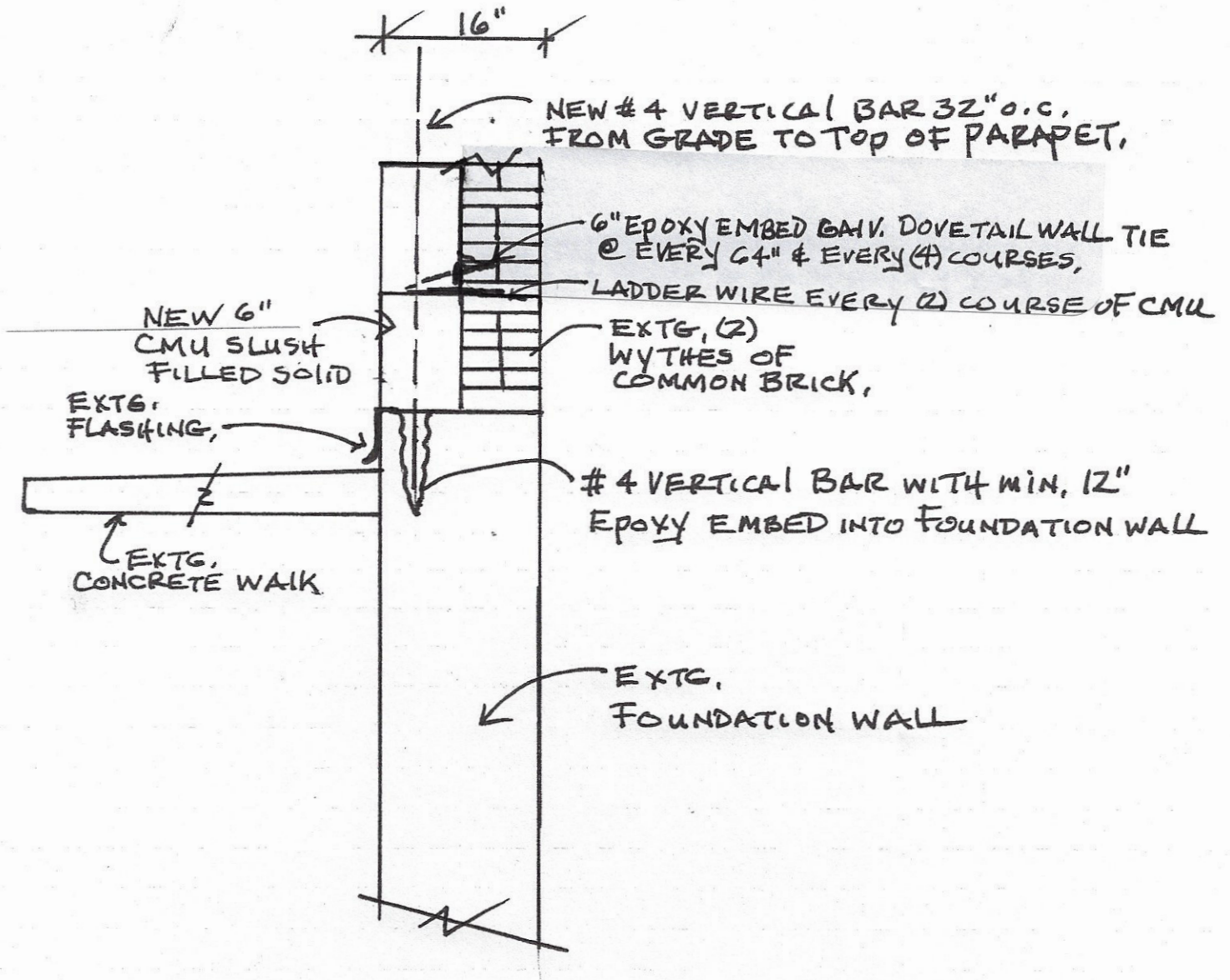
Adjustments

YP Factor, Lc	0.66	0.40	

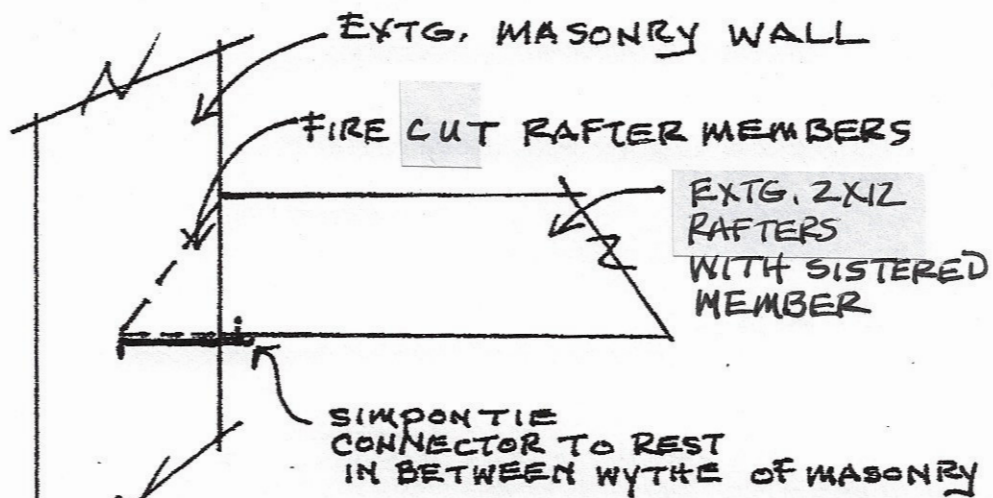
Loads Uniform LL: 1000 Uniform TL: 2250 = A



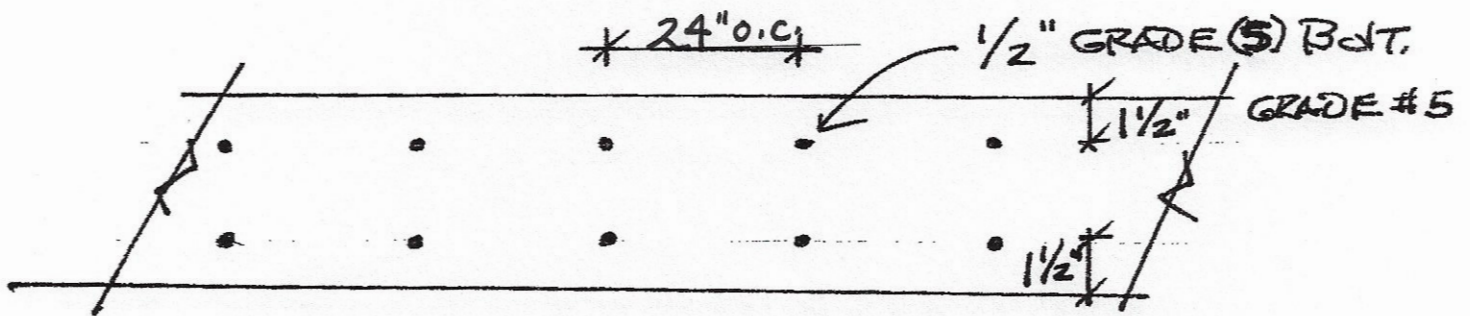
Uniform and partial uniform loads are lbs per lineal ft.



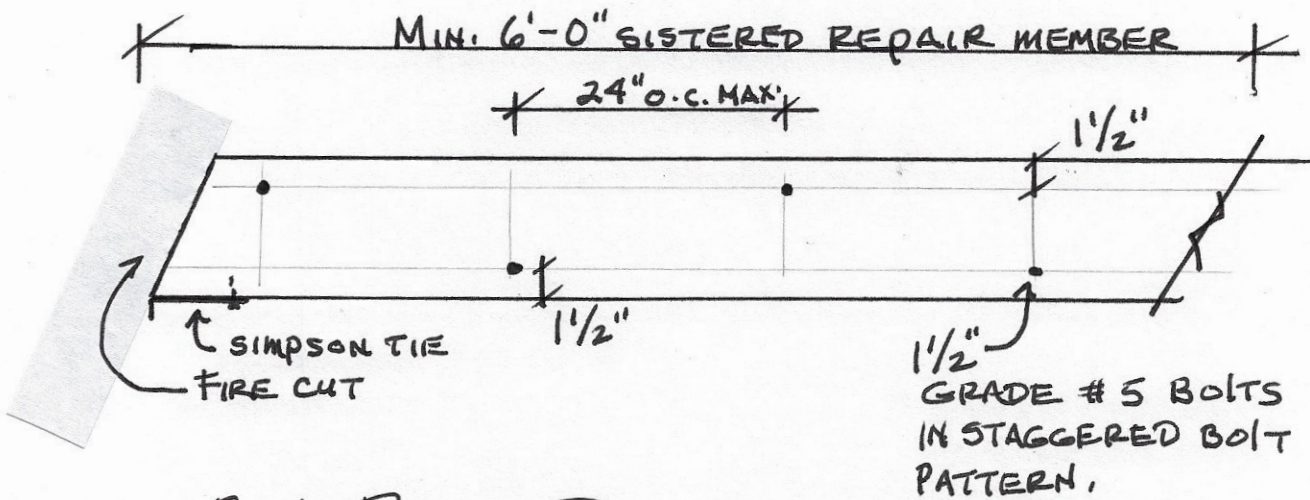
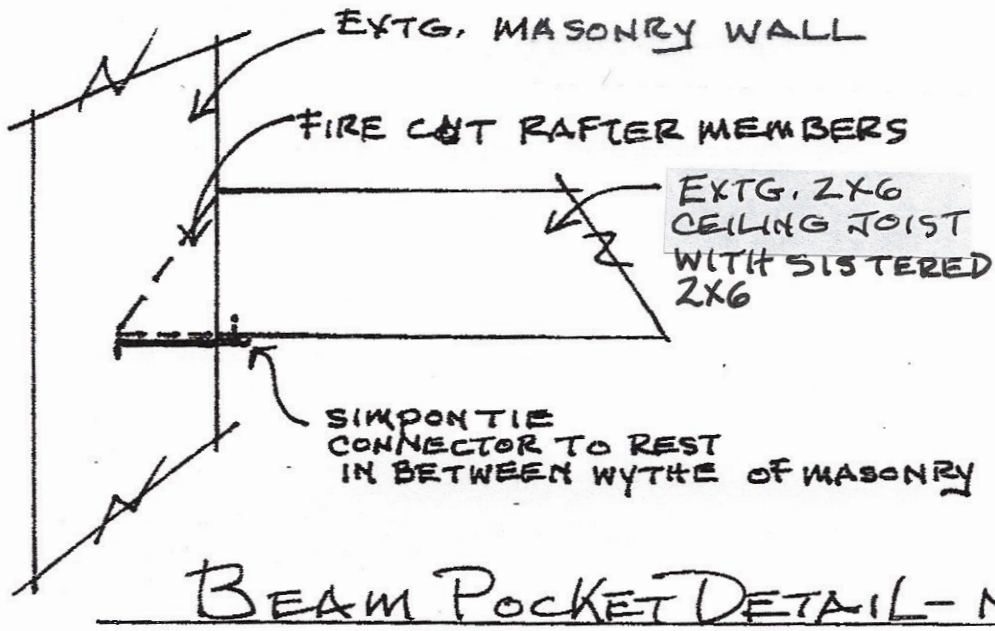
CMU TO FOUNDATION DETAIL-NTS



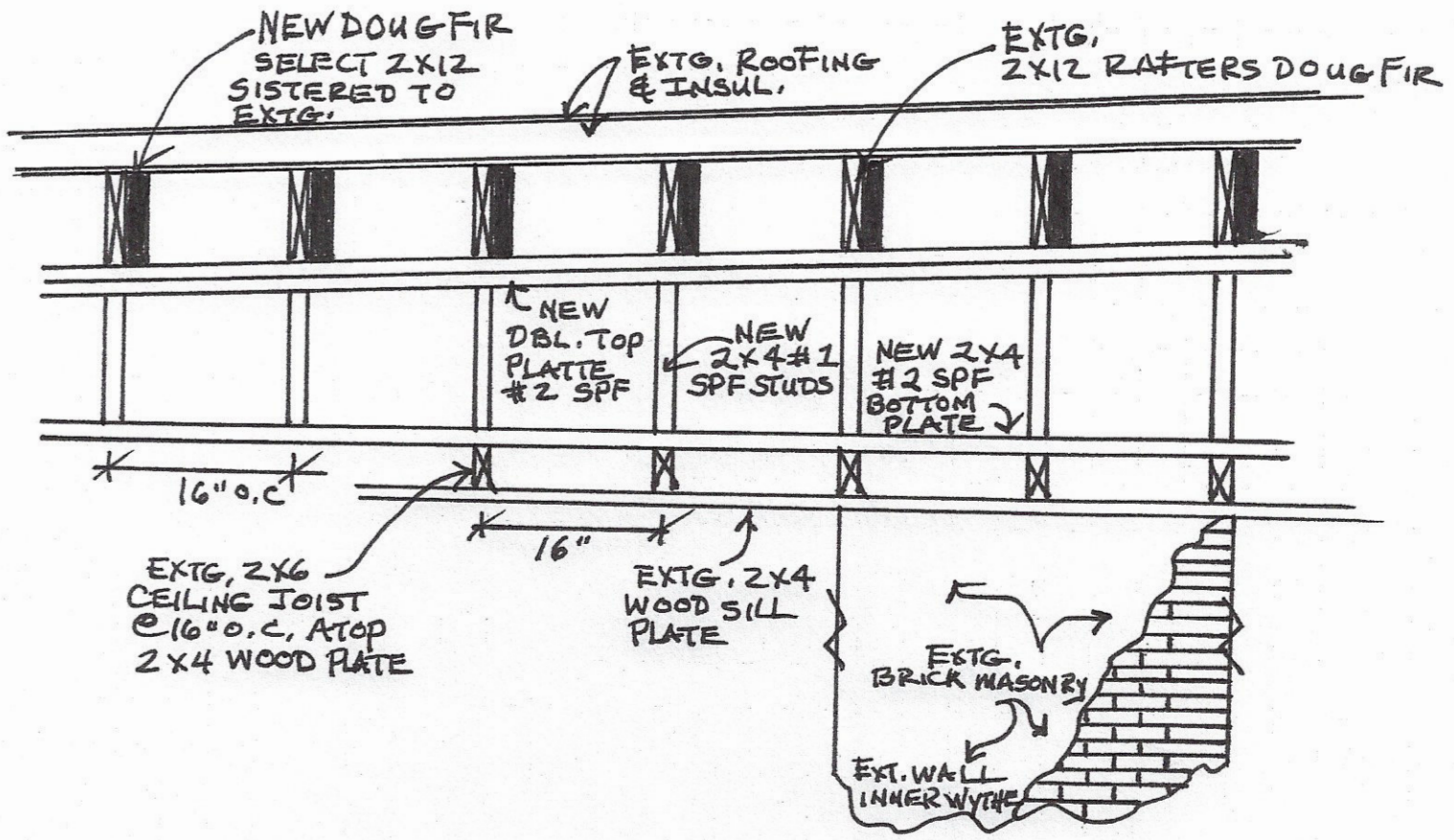
BEAM POCKET DETAIL - NTS



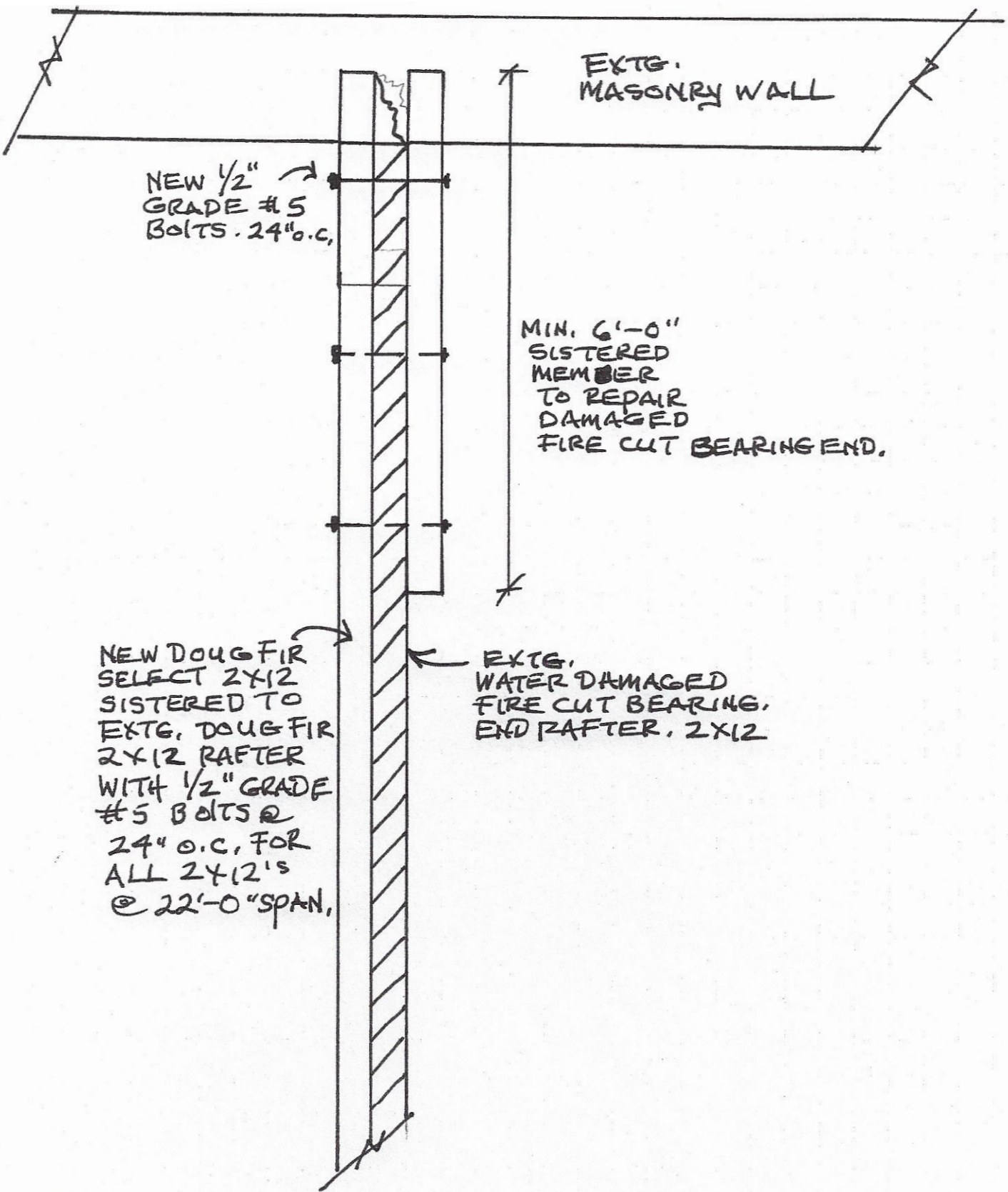
BOLT PATTERN DETAIL FOR SISTERED MEMBERS
NTS



BOLT PATTERN DETAIL - NTS



PROPOSED FRAMING SECTION - REPAIR OF RAFTERS
& NEW CRIPPLE KNEEWALL FRAMING - NTS



NEW 1/2" GRADE #5 BOLTS - 24" o.c.

EXTG. MASONRY WALL

MIN. 6'-0" SISTERED MEMBER TO REPAIR DAMAGED FIRE CUT BEARING END.

NEW DOUG FIR SELECT 2X12 SISTERED TO EXTG. DOUG FIR 2X12 RAFTER WITH 1/2" GRADE #5 BOLTS @ 24" o.c. FOR ALL 2X12'S @ 22'-0" SPAN.

EXTG. WATER DAMAGED FIRE CUT BEARING. END RAFTER, 2X12

RAFTER TO BEARING WALL CONNECTION - NTS

EXAMPLE - OF GFRC

ADVANCED ARCHITECTURAL


S · T · O · N · E

(<https://www.advancedarchitecturalstone.com/>)

TAG ARCHIVES: GFRC CORNICE

CREATIVITY, PRECISE DESIGN MATCHING FOR SUNDANCE PALACE THEATER
([HTTPS://WWW.ADVANCEDARCHITECTURALSTONE.COM/BLOG/ARCHITECTURAL-GFRC/CREATIVITY-PRECISE-DESIGN-MATCHING-FOR-SUNDANCE-PALACE-THEATER/](https://www.advancedarchitecturalstone.com/blog/architectural-gfrc/creativity-precise-design-matching-for-sundance-palace-theater/))





GFRC Keystone, Banding, Architectural Trim with Fish Pattern, Cornice with Dentil Pattern

The AAS team worked closely with the architect and contractor to realize elevation design for the Sundance Palace Theater in Fort Worth, TX.

Preserving the original theme of the theater building while carrying out this renovation project was the key to success. The stone pieces for this are custom manufactured using cast stone and GFRC.

The stone panels for the fish design pattern on the jamb and arch used not only the AAS technology, but also the design craftsmanship and experience of the AAS team.

AAS developed the large protruding decorative keystone in architectural GFRC product material. The original design piece was hand carved. AAS artist developed the matching replica of the keystone using clay. Once it was approved by the architects, the team used that to develop rubber mold for the piece. This mold was used in turn to fabricate the keystone with intricate design details in GFRC ([//www.advancedarchitecturalstone.com/architectural-gfrc/](http://www.advancedarchitecturalstone.com/architectural-gfrc/)).

The precise matching of stone pieces for the massive cornice and dentil design at the top of the theater elevation achieved monolithic stone look.

Project Name:

Sundance East – Palace Block

Architect:

David M Schwarz Architects, Inc.

General Contractor:

Dennet Construction

Products:

Cast Stone ([//www.advancedarchitecturalstone.com/materials/cast-stone/](http://www.advancedarchitecturalstone.com/materials/cast-stone/)), Architectural GFRC ([//www.advancedarchitecturalstone.com/architectural-gfrc/](http://www.advancedarchitecturalstone.com/architectural-gfrc/))

Award: APA Design Craftsmanship Award

Cornice work and banding, particularly decorative and protruded banding, are a particular specialty for Architectural Products. The ability of Advanced Architectural Stone (AAS) to produce massively projecting elements with light weight shapes allows architects not only to achieve unattainable results in other materials, but also to achieve the form at a practical and economical cost.

> PROJECTS GALLERY: INTEGRATED CORNICE AND BANDING DESIGNS

([//www.advancedarchitecturalstone.com/integrated-cornice-and-banding-design-for-exterior-stone-applications/](http://www.advancedarchitecturalstone.com/integrated-cornice-and-banding-design-for-exterior-stone-applications/))

Combine Stone Panels: Optimize Design ([//www.advancedarchitecturalstone.com/stone-panels-combine-products-for-design-options-simpler-construction-optimum-cost/](http://www.advancedarchitecturalstone.com/stone-panels-combine-products-for-design-options-simpler-construction-optimum-cost/))

Complex Shapes, Intricate Design ([//www.advancedarchitecturalstone.com/complex-shapes-using-custom-molds-design/](http://www.advancedarchitecturalstone.com/complex-shapes-using-custom-molds-design/))

Match Any Color: Project Examples (<http://www.advancedarchitecturalstone.com/custom-colors-and-finishes-for-design-vision/>)

VIDEO: GFRC CONNECTIONS SIMPLIFY INSTALLATION, OPEN UP DESIGN OPTIONS
([HTTPS://WWW.ADVANCEDARCHITECTURALSTONE.COM/BLOG/ARCHITECTURAL-GFRC/PRE-ENGINEERED-GFRC-CONNECTIONS-SIMPLIFIES-INSTALLATION-OPENS-UP-DESIGN-OPTIONS/](https://www.advancedarchitecturalstone.com/blog/architectural-gfrc/pre-engineered-gfrc-connections-simplifies-installation-opens-up-design-options/))

GFRC products have pre-engineered, built in connections that simplifies the onsite installation.

See in this video, examples of drawings and images of products being installed at the SMU Delta Gamma Sorority House project.

Architectural GFRC : Product Connection Details, Installation Support



AAS has bandwidth and a well developed system to work closely with architects (<http://www.advancedarchitecturalstone.com/aas-support-for-architects/>), contractors and masons (<http://www.advancedarchitecturalstone.com/aas-support-for-builders/>) for every project. Installation support details are designed with intent of not only realizing architect's desired design vision, but also simple, easy installation.

As required, project team works with customers in selecting combination of products (<http://www.advancedarchitecturalstone.com/aas-products/>) that would achieve design cost effectively.

GFRC PRODUCTS: SEE MANUFACTURING IN WORKS

Custom Design GFRC Cornices

GFRC cornices with pre-engineered connections for simple, easy installation: see the manufacturing process for GFRC cornices in this VIDEO BLOG POST >> (<http://www.advancedarchitecturalstone.com/blog/architectural-gfrc/architectural-gfrc-cornices-for-smu-see-manufacturing-in-works/>)



(<http://www.advancedarchitecturalstone.com/blog/architectural-gfrc/architectural-gfrc-cornices-for-smu-see-manufacturing-in-works/>)

Fluted Tapered GFRC Columns, Corinthian Capitals

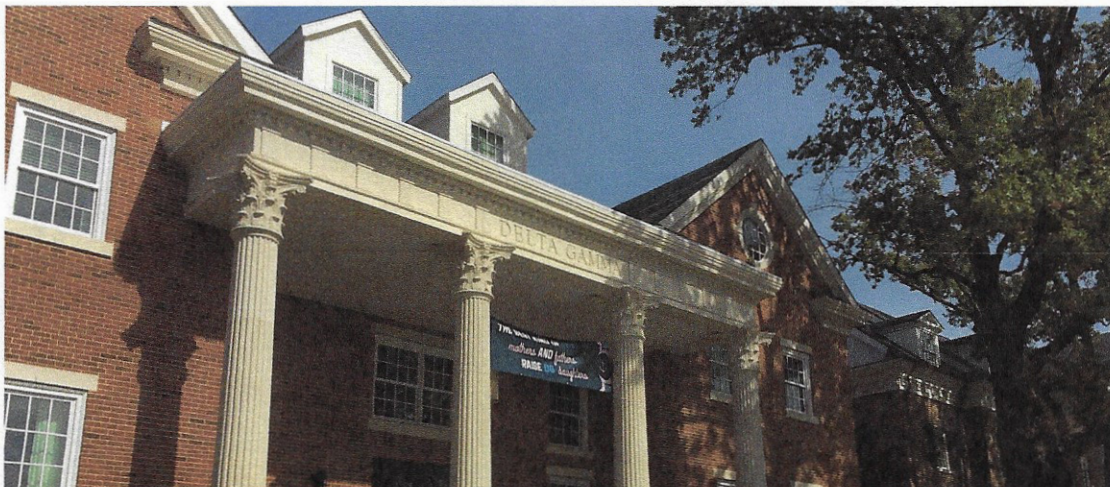
Custom design fluted, tapered GFRC columns and corinthian capitals ... VIDEO CLIPS show manufacturing process for creating different components of the modular design >>

(<http://www.advancedarchitecturalstone.com/blog/architectural-stone/fluted-gfrc-columns-for-smu-see-manufacturing-process-with-video-clips/>)



(//www.advancedarchitecturalstone.com/blog/architectural-stone/fluted-gfrp-columns-for-smu-see-manufacturing-process-with-video-clips/)

GFRP Project: Architectural Stone Cladding, Columns for SMU Delta Gamma Sorority House
(//www.advancedarchitecturalstone.com/aas-case-study-smu-delta-gamma-architectural-stone-design-using-gfrp/)



(//www.advancedarchitecturalstone.com/aas-case-study-smu-delta-gamma-architectural-stone-design-using-gfrp/)

SMU Delta Gamma Sorority House | Architectural GFRP Columns, Cladding for Desired Building Elevation Aesthetic

GFRP Project: High Elevation Entry Way Design for Dry Creek Elementary School
(//www.advancedarchitecturalstone.com/architectural-gfrp/dry-creek-elementary-school-lehi-ut/)

GFRC Panels for Dry Creek Elementary School: See **CASE STUDY** →



(<http://www.advancedarchitecturalstone.com/architectural-gfrc/dry-creek-elementary-school-lehi-ut/>)

GFRC Panels for Dry Creek Elementary School – AAS – formerly ACS – **LEARN MORE >>**

GFRC Project: High Design Fully Integrated Cladding, Columns, Architectural Accent
(<http://www.advancedarchitecturalstone.com/architectural-gfrc/gilbert-christian-school-architectural-gfrc-project/>)



(<http://www.advancedarchitecturalstone.com/architectural-gfrc/gilbert-christian-school-architectural-gfrc-project/>)

AAS Architectural GFRC Case Study | Gilbert Christian High School | **SEE MORE >>**

Why AAS? (<http://www.advancedarchitecturalstone.com/aas-advantage/>)

Products (<http://www.advancedarchitecturalstone.com/materials/>)

Stone Cladding (<http://www.advancedarchitecturalstone.com/cladding-using-architectural-stone/>)

Veneers (<http://www.advancedarchitecturalstone.com/building-veneers-using-architectural-stone/>)

Columns (<http://www.advancedarchitecturalstone.com/columns-for-architectural-designs/>)

Projects (<http://www.advancedarchitecturalstone.com/aas-project-gallery/>)

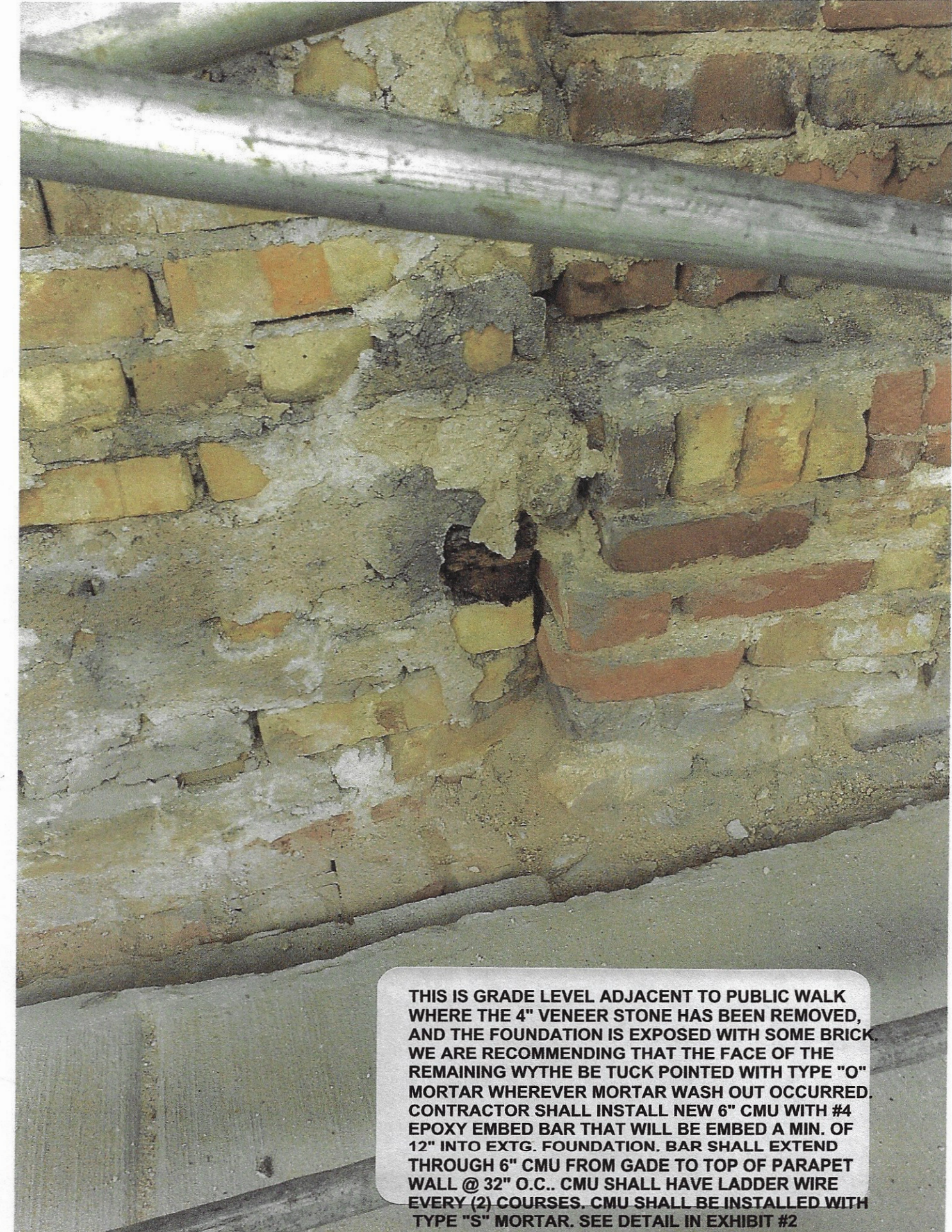
For Architects (<http://www.advancedarchitecturalstone.com/aas-support-for-architects/>)

For Masons (<http://www.advancedarchitecturalstone.com/aas-support-for-builders/>)


Videos (<http://www.advancedarchitecturalstone.com/videos/>)

ARCHITECTURAL GFRC CORNICES FOR SMU: SEE MANUFACTURING IN WORKS
(<https://www.advancedarchitecturalstone.com/blog/architectural->

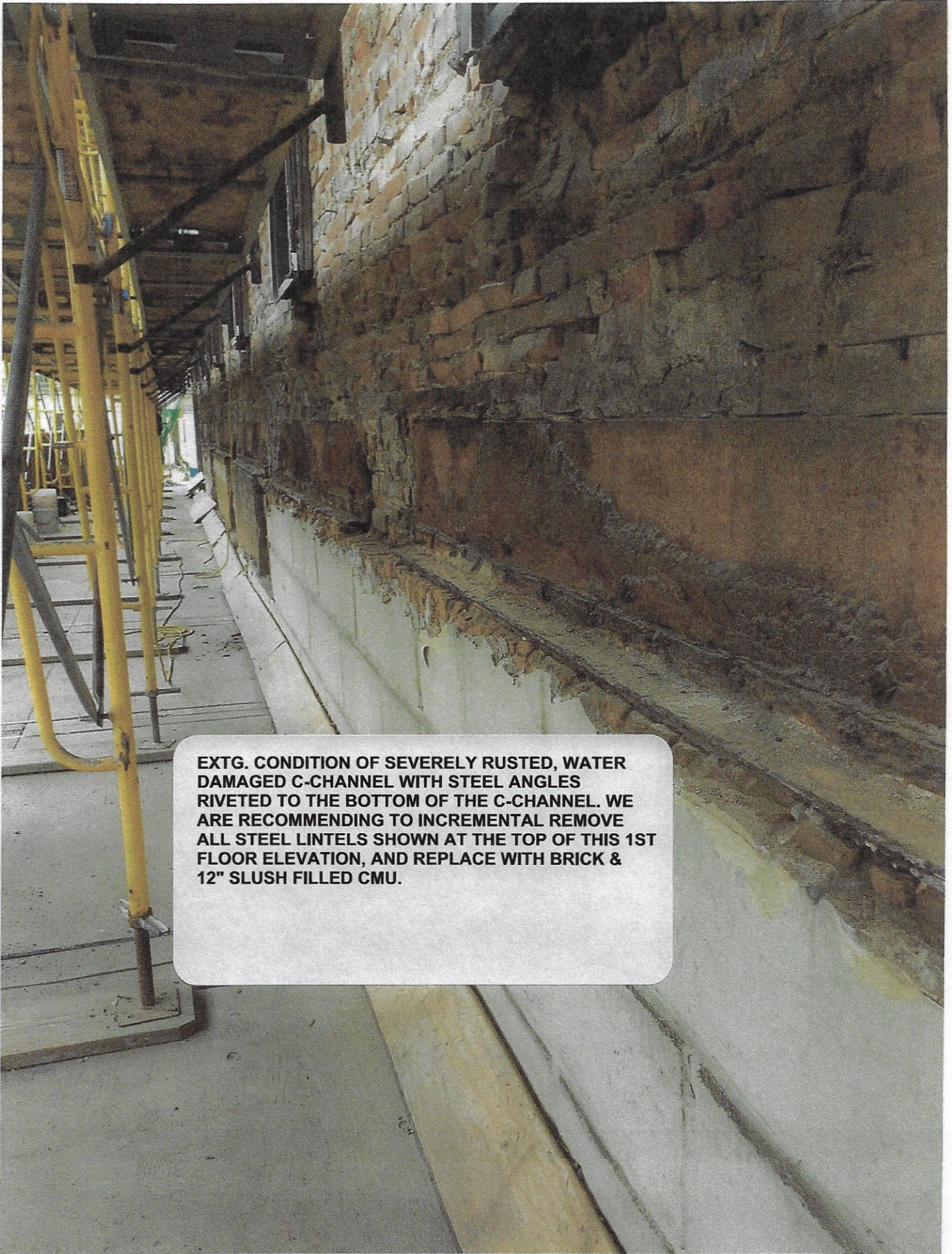
EXHIBIT # 3



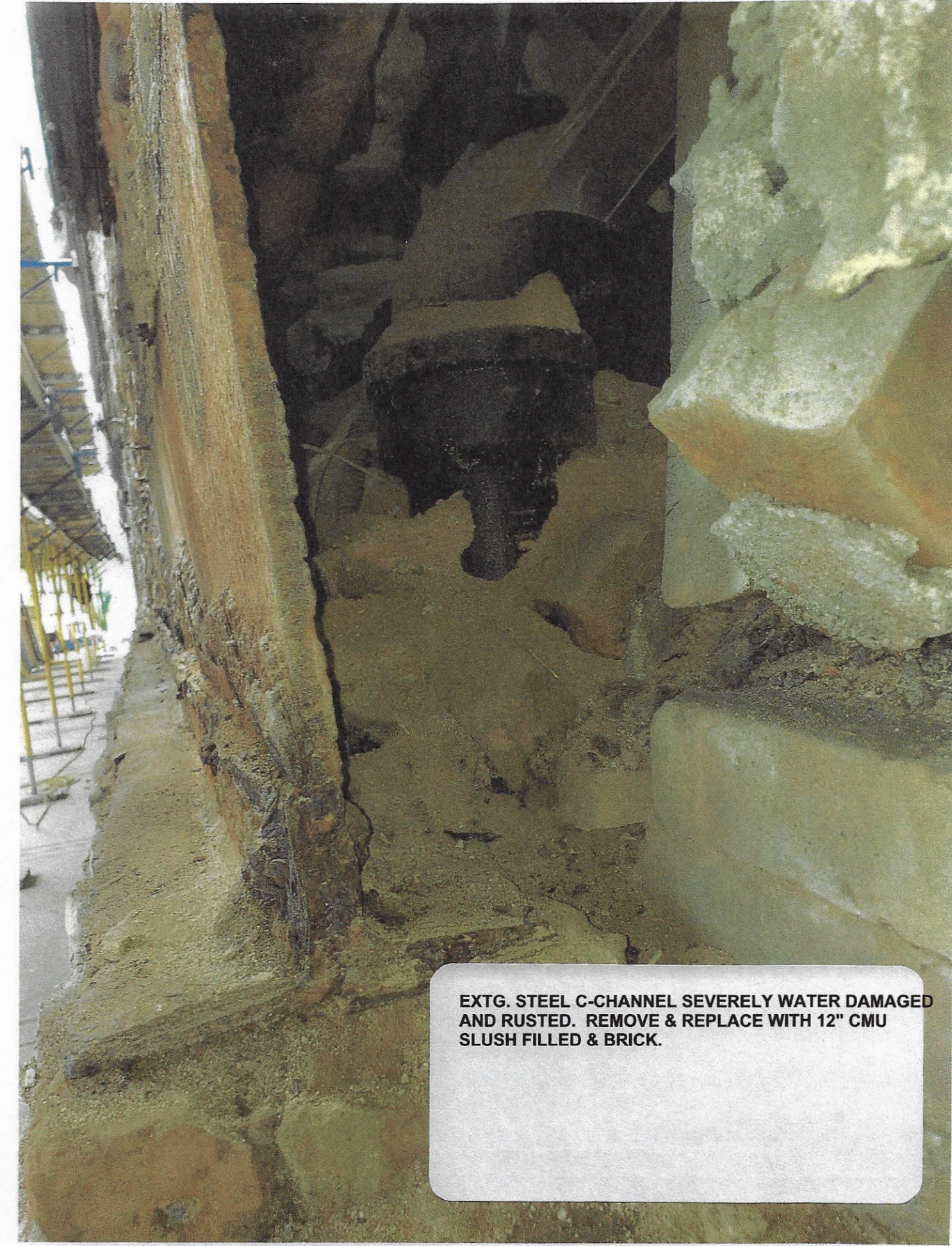
THIS IS GRADE LEVEL ADJACENT TO PUBLIC WALK WHERE THE 4" VENEER STONE HAS BEEN REMOVED, AND THE FOUNDATION IS EXPOSED WITH SOME BRICK. WE ARE RECOMMENDING THAT THE FACE OF THE REMAINING WYTHE BE TUCK POINTED WITH TYPE "O" MORTAR WHEREVER MORTAR WASH OUT OCCURRED. CONTRACTOR SHALL INSTALL NEW 6" CMU WITH #4 EPOXY EMBED BAR THAT WILL BE EMBED A MIN. OF 12" INTO EXTG. FOUNDATION. BAR SHALL EXTEND THROUGH 6" CMU FROM GADE TO TOP OF PARAPET WALL @ 32" O.C.. CMU SHALL HAVE LADDER WIRE EVERY (2) COURSES. CMU SHALL BE INSTALLED WITH TYPE "S" MORTAR. SEE DETAIL IN EXHIBIT #2



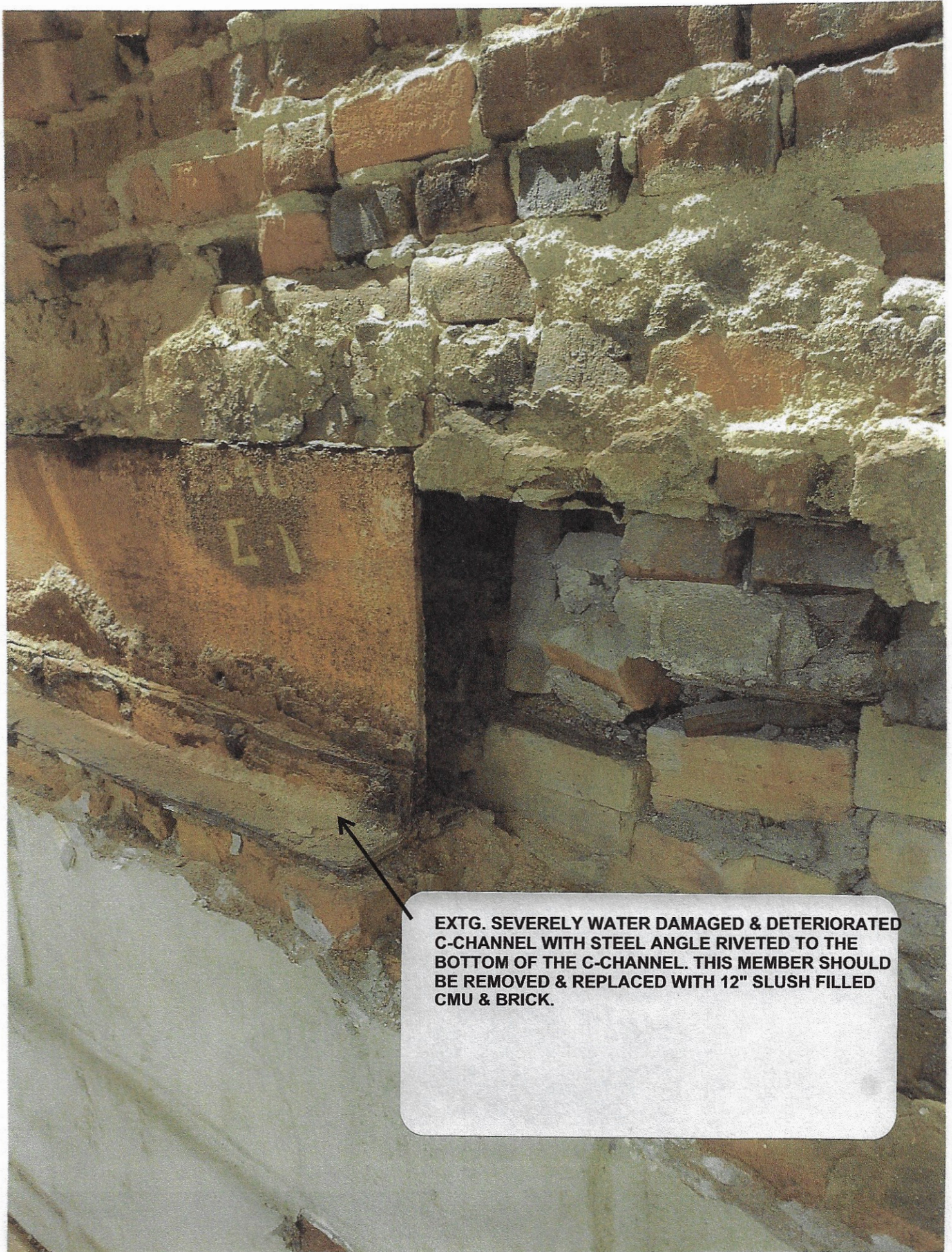
THIS IS THE AREA OF N.E. CORNER WHERE AN ADDITION WAS ADDED TO THE REAR OF THE BUILDING IN THE PAST. THE BIODEGRADABLE WOOD INSERTS SHOULD BE REMOVED & REPLACED WITH BRICK. CONTRACTOR SHALL INSTALL CONTROL JOINT FROM GRADE TO PARAPET WALL. ALL MORTAR WASH OUT SHALL BE TUCK POINTED WITH TYPE "O" MORTAR PER STANDARDS OF THE BRICK INDUSTRY ASSOCIATION & INTERNATIONAL BUILDING CODE.



EXTG. CONDITION OF SEVERELY RUSTED, WATER DAMAGED C-CHANNEL WITH STEEL ANGLES RIVETED TO THE BOTTOM OF THE C-CHANNEL. WE ARE RECOMMENDING TO INCREMENTAL REMOVE ALL STEEL LINTELS SHOWN AT THE TOP OF THIS 1ST FLOOR ELEVATION, AND REPLACE WITH BRICK & 12" SLUSH FILLED CMU.



EXTG. STEEL C-CHANNEL SEVERELY WATER DAMAGED AND RUSTED. REMOVE & REPLACE WITH 12" CMU SLUSH FILLED & BRICK.

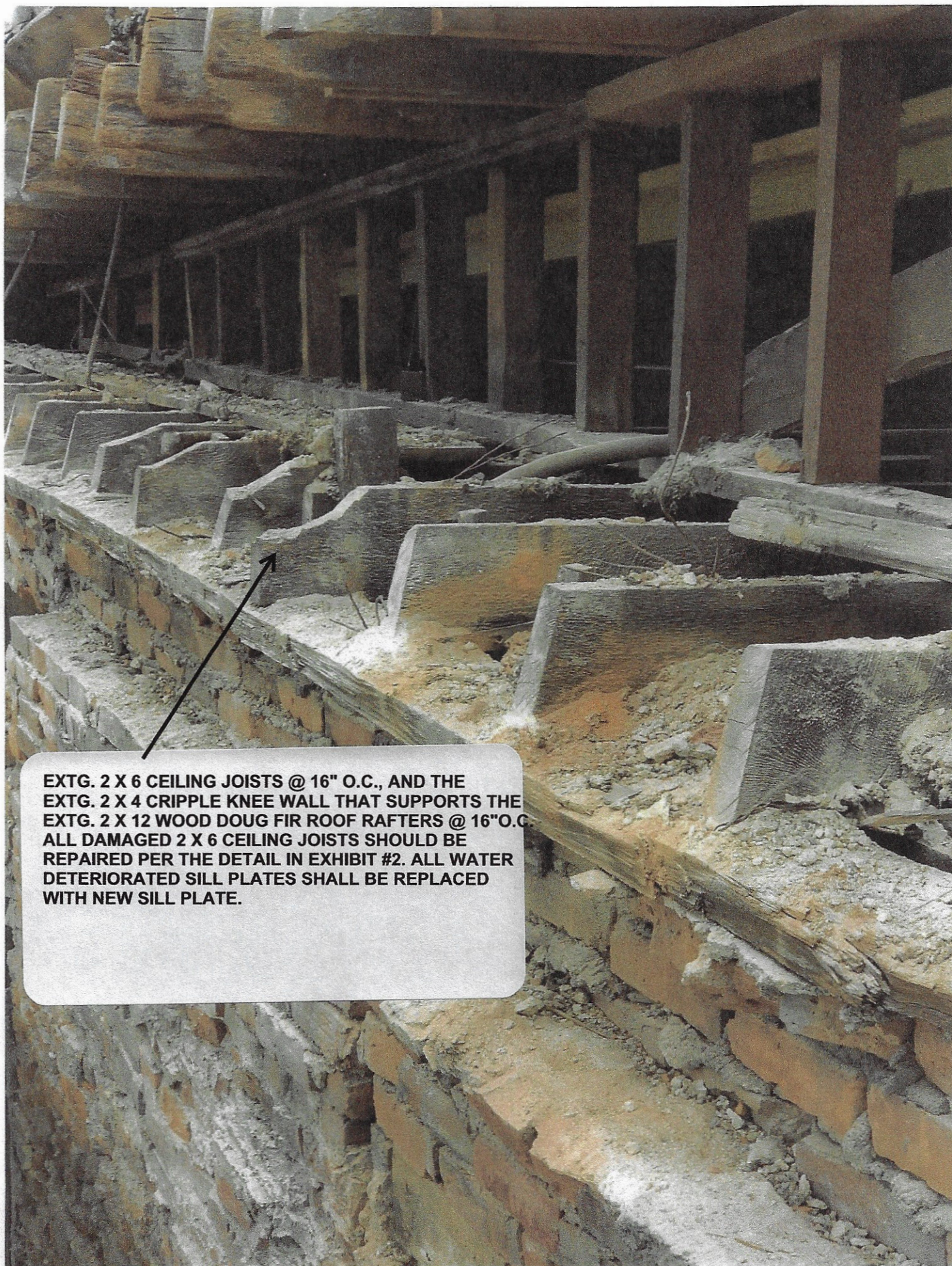


EXTG. SEVERELY WATER DAMAGED & DETERIORATED C-CHANNEL WITH STEEL ANGLE RIVETED TO THE BOTTOM OF THE C-CHANNEL. THIS MEMBER SHOULD BE REMOVED & REPLACED WITH 12" SLUSH FILLED CMU & BRICK.



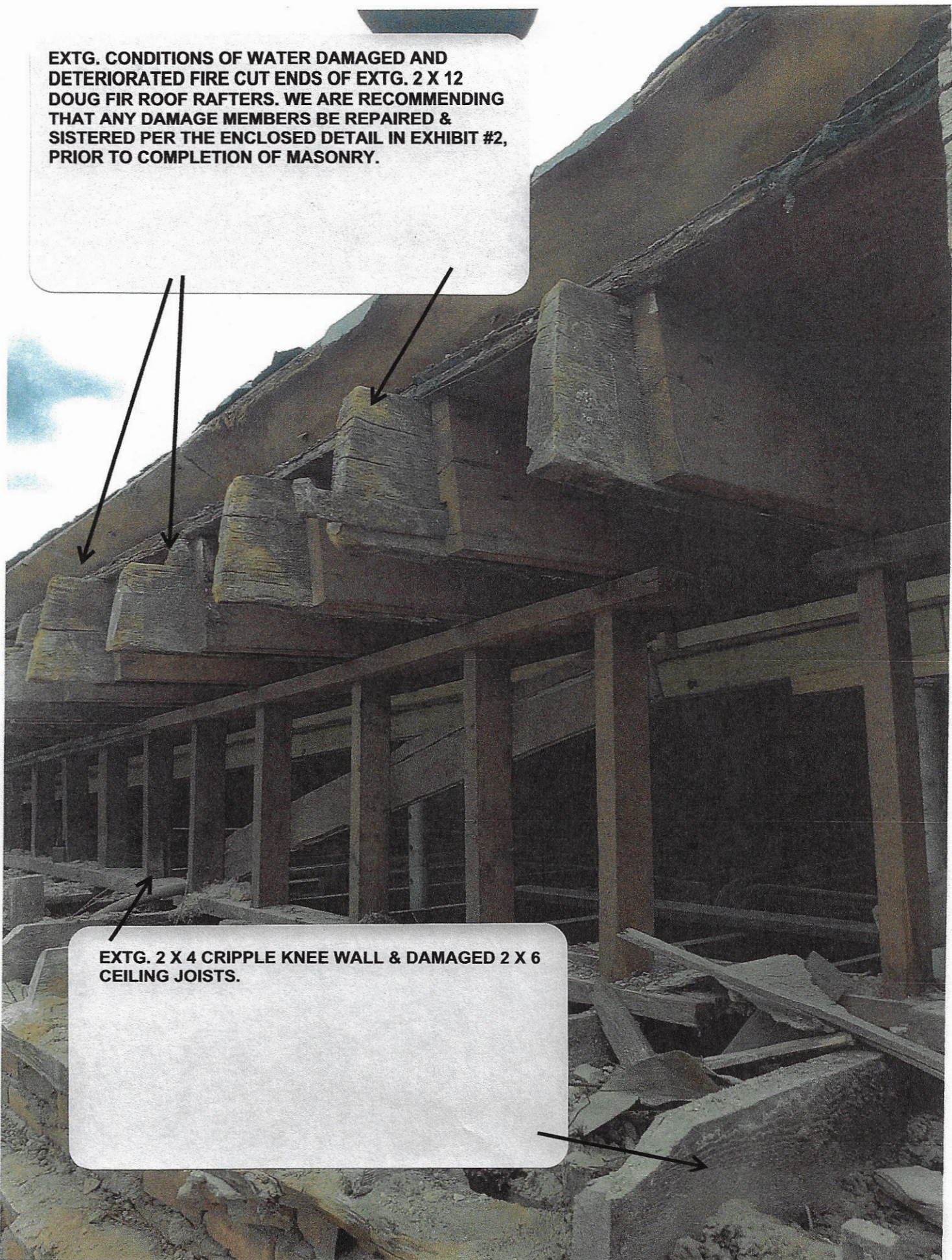
EXTG. 2 X 6 CEILING JOISTS @ 16" O.C.

EXTG. WOOD WINDOW LINTEL IN SEVERAL LOCATIONS. WE ARE RECOMMENDING THAT ANY WATER DAMAGED WOOD LINTEL SHOULD BE REPLACED WITH A NEW STEEL LINTEL. IT SHOULD BE REPLACED WITH A NEW W8 X 18 WITH A NEW 3/8" X 14" PLATE WELDED TO THE BOTTOM FLANGE OF THE W8 X 18. SEE CALCULATIONS IN EXHIBIT #1.



**EXTG. 2 X 6 CEILING JOISTS @ 16" O.C., AND THE
EXTG. 2 X 4 CRIPPLE KNEE WALL THAT SUPPORTS THE
EXTG. 2 X 12 WOOD DOUG FIR ROOF RAFTERS @ 16" O.C.
ALL DAMAGED 2 X 6 CEILING JOISTS SHOULD BE
REPAIRED PER THE DETAIL IN EXHIBIT #2. ALL WATER
DETERIORATED SILL PLATES SHALL BE REPLACED
WITH NEW SILL PLATE.**

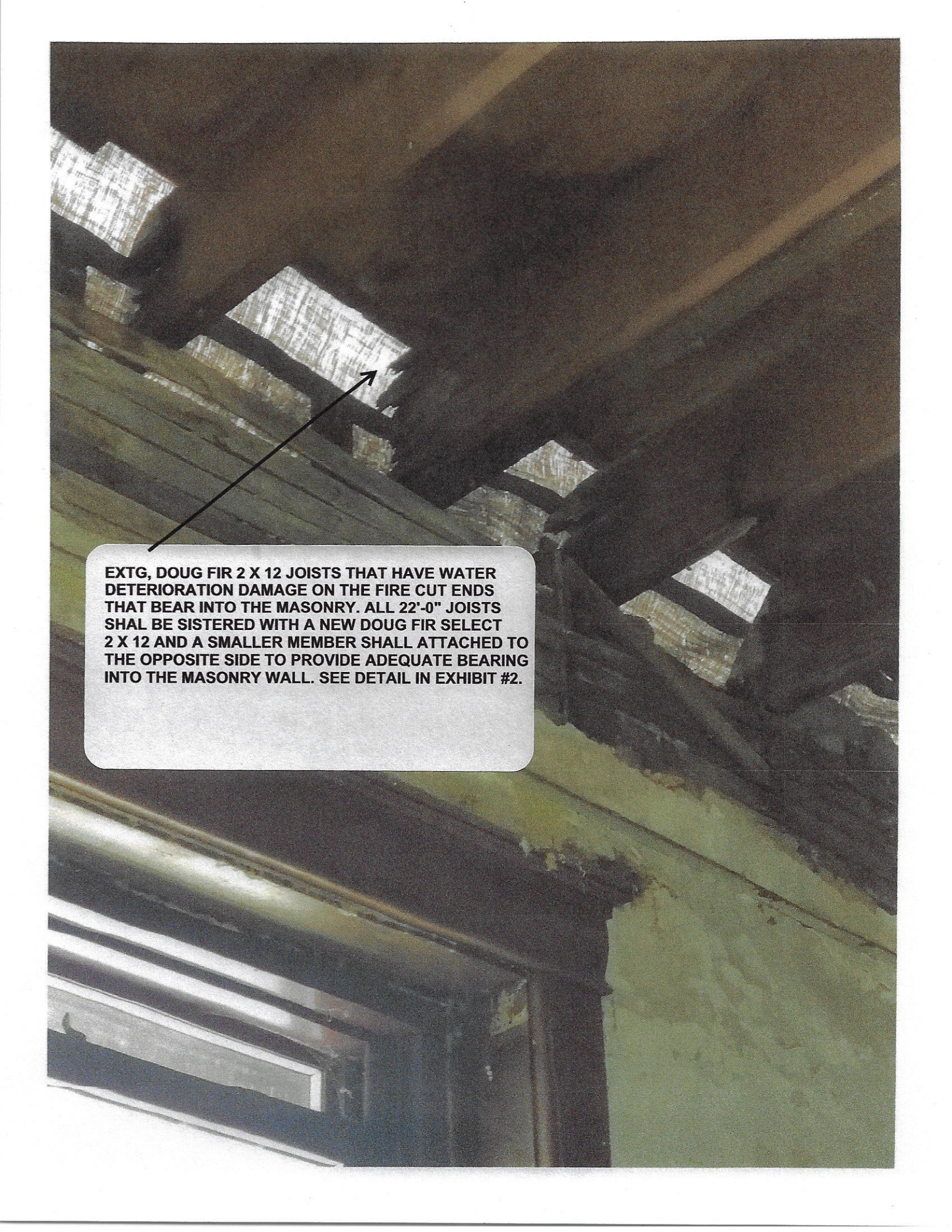
EXTG. CONDITIONS OF WATER DAMAGED AND DETERIORATED FIRE CUT ENDS OF EXTG. 2 X 12 DOUG FIR ROOF RAFTERS. WE ARE RECOMMENDING THAT ANY DAMAGE MEMBERS BE REPAIRED & SISTERED PER THE ENCLOSED DETAIL IN EXHIBIT #2, PRIOR TO COMPLETION OF MASONRY.



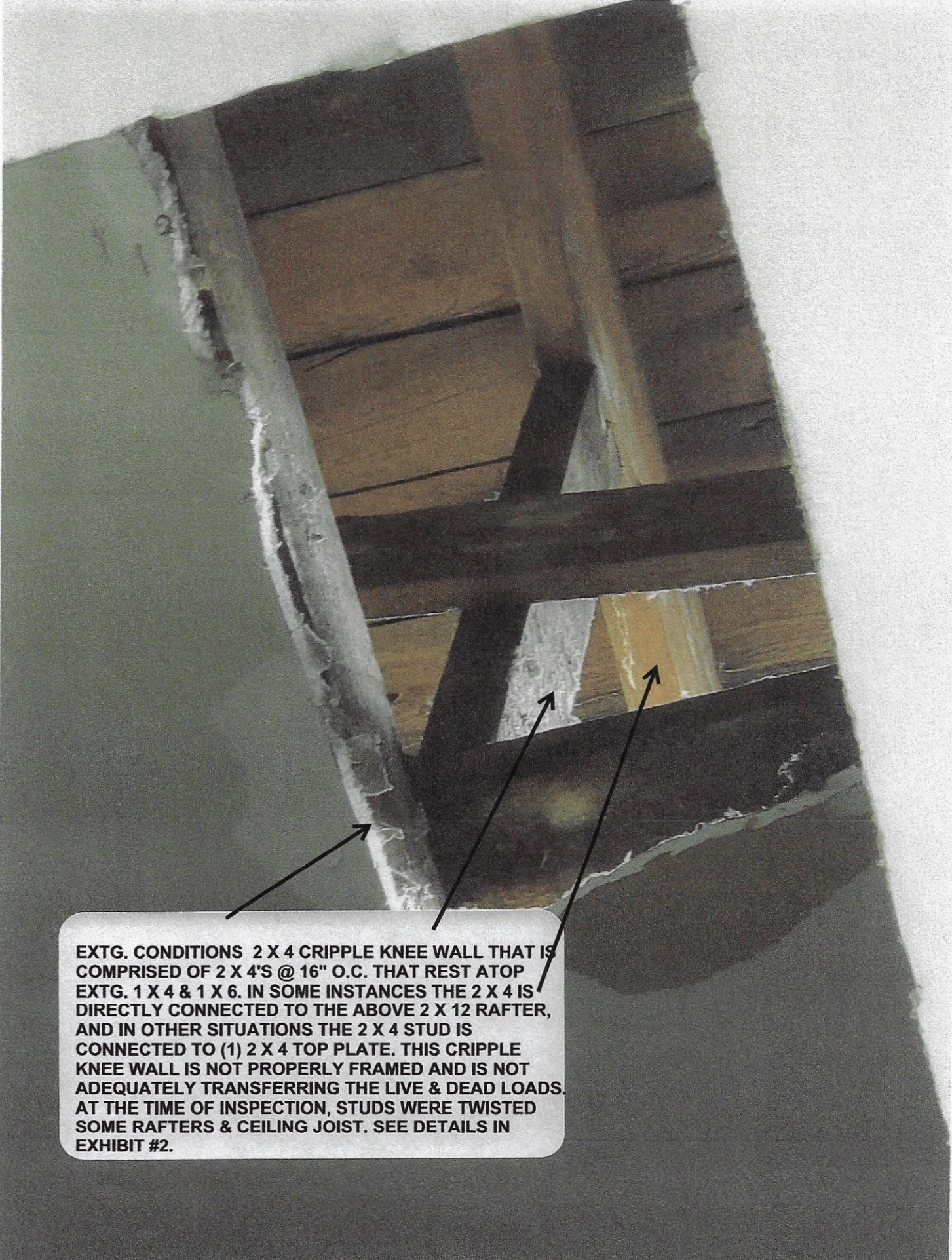
EXTG. 2 X 4 CRIPPLE KNEE WALL & DAMAGED 2 X 6 CEILING JOISTS.



EXTG. CONCRETE DENTAL PATTERN & CONCRETE CORNICE EXHIBITS QUITE A BIT OF DEAD LOAD THAT IS NOT ADEQUATELY SUPPORTED. THIS CONDITION ALSO EXIST ON THE FACADE ON BROADWAY. THE PINS ARE RUSTED AND WATER PENETRATION HAS CREATED SOME DETERIORATED AREAS. WE ARE RECOMMENDING REPLACEMENT OF THESE (2) ARCHITECTURAL ELEMENTS WITH NEW GFRC PANELS FOR DENTAL & CORNICE WORK. THE REPRODUCTION IS EXACT AND WILL BE ABOUT 1/3RD OF THE DEAD LOAD WEIGHT. SEE EXAMPLE IN DETAIL #2

The photograph shows the interior of a ceiling structure. Several dark wooden joists are visible, some of which appear to be damaged or charred. A black arrow points from a text box to one of these joists. The ceiling is partially covered with a light-colored, fibrous insulation material. Below the ceiling, a window with a metal frame is visible on the left side. The overall scene suggests a construction or renovation project involving structural repairs to the ceiling.

EXTG, DOUG FIR 2 X 12 JOISTS THAT HAVE WATER DETERIORATION DAMAGE ON THE FIRE CUT ENDS THAT BEAR INTO THE MASONRY. ALL 22'-0" JOISTS SHAL BE SISTERED WITH A NEW DOUG FIR SELECT 2 X 12 AND A SMALLER MEMBER SHALL ATTACHED TO THE OPPOSITE SIDE TO PROVIDE ADEQUATE BEARING INTO THE MASONRY WALL. SEE DETAIL IN EXHIBIT #2.



EXTG. CONDITIONS 2 X 4 CRIPPLE KNEE WALL THAT IS COMPRISED OF 2 X 4'S @ 16" O.C. THAT REST ATOP EXTG. 1 X 4 & 1 X 6. IN SOME INSTANCES THE 2 X 4 IS DIRECTLY CONNECTED TO THE ABOVE 2 X 12 RAFTER, AND IN OTHER SITUATIONS THE 2 X 4 STUD IS CONNECTED TO (1) 2 X 4 TOP PLATE. THIS CRIPPLE KNEE WALL IS NOT PROPERLY FRAMED AND IS NOT ADEQUATELY TRANSFERRING THE LIVE & DEAD LOADS. AT THE TIME OF INSPECTION, STUDS WERE TWISTED SOME RAFTERS & CEILING JOIST. SEE DETAILS IN EXHIBIT #2.

