

CERTIFICATE OF APPROPRIATENESS PLACARD

for Raleigh Historic Resources

Project Description:

Renew COA-134-2019 [Remove and reconstruct cupola using synthetic materials; alter exterior stairs on east and north facades]; Remove fire escape stairs; Alter non-historic metal windows; Remove metal door and stairs and replace with window; Replace all exterior metal doors; Install security cameras; Conduct east/west elevation tuckpointing

401 E Whitaker Mill Rd

Address

Historic District

Wake County Home

Historic Property

COA-0064-2020

Certificate Number

5/26/2020

Date of Issue

5/26/2021

Expiration Date

This card must be kept posted in a location within public view until all phases of the described project are complete. The work must conform with the code of the City of Raleigh and laws of the state of North Carolina. When your project is complete, you are required to ask for a final zoning inspection in a historic district area. Telephone the RHDC office at 832-7238 and commission staff will coordinate the inspection with the inspections Department. If you do not call for this final inspection, your Certificate of Appropriateness is null and void.

Signature, _____

Collette R. Kinn

Raleigh Historic Development Commission

Pending the resolution of appeals, commencement of work is at your own risk.

Type or print the following:		
Applicant name: Sebastian Duca AIA		
Mailing address: Davis Kane Architects, 503 Oberlin Rd.		
City: Raleigh	State: NC	Zip code: 27605
Date: 04/22/2020	Daytime phone #: 919-833-3737	
Email address: sduca@daviskane.com		
Applicant signature:		
<p>Minor work (staff review) – one copy</p> <p>Major work (COA committee review) – ten copies</p> <p> Additions > 25% of building sq. footage</p> <p> New buildings</p> <p> Demolition of building or structure</p> <p> All other</p> <p>Post approval re-review of conditions of approval</p>		<p>Office Use Only</p> <p>Transaction #: _____</p> <p>File #: <u>COA-0004-2020</u></p> <p>Fee: _____</p> <p>Amount paid: _____</p> <p>Received date: _____</p> <p>Received by: _____</p>
Property street address: 401 E Whitaker Mill Rd. Raleigh NC 27608		
Historic district:		
Historic property/Landmark name (if applicable): Raleigh Historic Property		
Owner name: Wake County Government (represented by R Timothy Ashby, Project Manager)		
Owner mailing address: Facilities Design & Constr Dept, WCOB bldg, 11th Floor, Raleigh NC 27602		

For applications that require review by the COA Committee (major work), provide addressed and stamped envelopes for owners for all properties with 100 feet on all sides of the property, as well as the property owner.

Property Owner Name & Address	Property Owner Name & Address

I understand that all major work applications that require review by the Raleigh Historic Development Commission's COA Committee must be submitted by 4 p.m. on the date of the application deadline; otherwise, consideration will be delayed until the following committee meeting. An incomplete application will not be accepted.

Will you be applying for rehabilitation tax credits for this project? Yes <input type="radio"/> No <input checked="" type="radio"/>	Office Use Only Type of work: <u>29,50,00,84,85</u> <u>91</u>
Did you consult with staff prior to filing the application? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Design Guidelines: please cite the applicable sections of the design guidelines (www.rhdc.org).		
Section/Page	Topic	Brief description of work (attach additional sheets as needed).
1.	Fire escapes	Demo fire escapes, bldg. façade renovated to match original features
2.	Exterior door/stair	Demo exterior door/stair, bldg. façade renovated to match original features
3.	Wood sashes	Replace wd sashes to match existing, window frame, trim, sill, etc to remain
4.	Exterior doors	Replace existing exterior doors to match existing

Removed from application
See email correspondence.

Minor Work Approval (office use only)	
Upon being signed and dated below by the Planning Director or designee, this application becomes the Minor Work Certificate of Appropriateness. It is valid until <u>05/26/2021</u> . Please post the enclosed placard form of the certificate as indicated at the bottom of the card. Issuance of a Minor Work Certificate shall not relieve the applicant, contractor, tenant, or property owner from obtaining any other permit required by City Code or any law. Minor Works are subject to an appeals period of 30 days from the date of approval.	
Signature (City of Raleigh) <u>Collette R K</u>	Date <u>05/26/20</u>

5. Security Add exterior security cameras
6. Masonry Tuckpoint existing masonry on East and West elevations

April 14, 2020

To
Raleigh Historic Development Commission
Minor Work Application

Raleigh Historic Property:
Community Services Center
401 E. Whitaker Mill Rd., Raleigh NC



In addition to the items previously submitted and approved (Cupola renovation, exterior stairs alterations and wood canopy partial removal), we would like to submit the following renovation items for your review and approval:

1. Fire escapes demolition/ adjacent metal windows replacement
2. Exterior door/metal stair demolition
3. ~~Window sashes replacement~~ *Removed from application. See email correspondence.
4. Exterior hollow metal doors, frames and hardware replacement
5. New exterior security cameras
6. Masonry tuckpointing - East and West elevations

Please let us know if any other information is required.

Sebastian Duca AIA
Davis Kane Architects, P.A.
sduca@daviskane.com

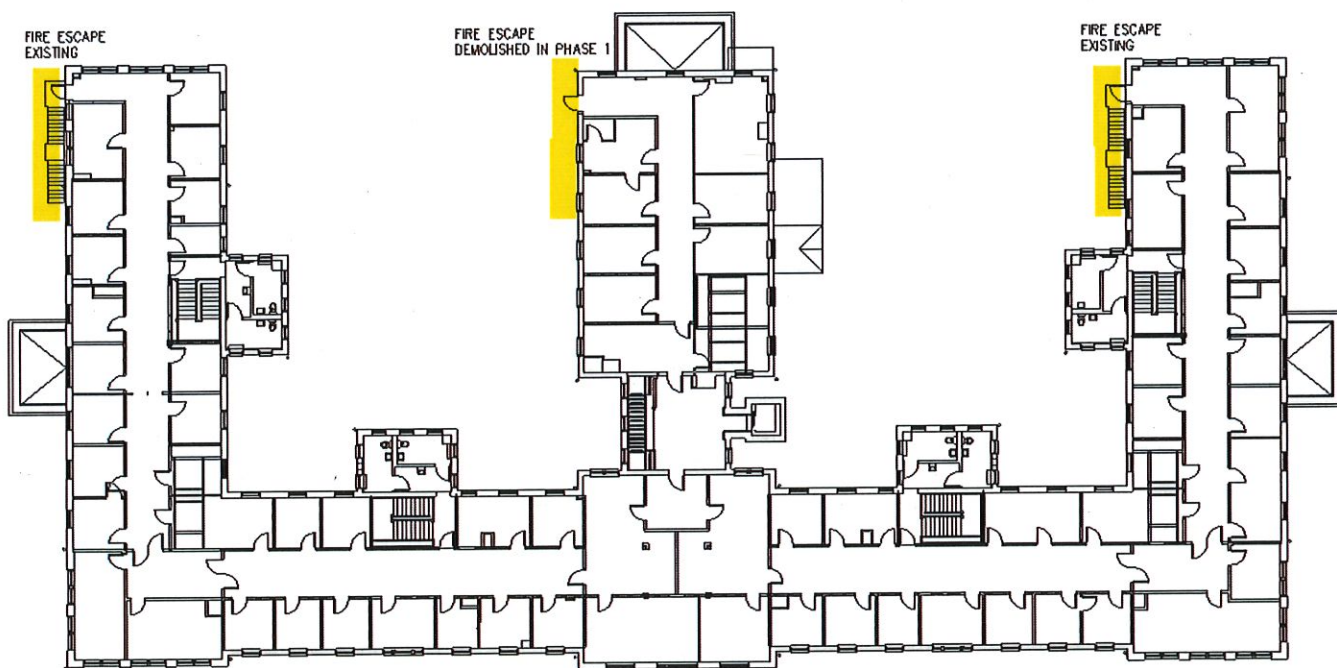
1. Fire escapes demolition/ adjacent metal windows replacement

Currently there are 2 fire escapes installed on East and West wings of the bldg. A third fire escape located on the central wing has been demolished in Phase 1 of the current renovation project (2019) due to safety concerns. All fire escapes are old, corroded and in advanced state of deterioration which makes them unsafe. The fire escapes and adjacent metal windows don't belong to the original bldg. design. They have been added at one point in time, probably required by one of the past bldg. Codes.

Our intention is to demolish the fire escapes, replace the adjacent metal windows and restore the brick wall where affected by the demolition work. (the 2014 renovation projects included the installation of a sprinkler system throughout the entire bldg. which, in conjunction with some interior re-compartmentations, makes the fire escapes not required by the current Bldg. Code anymore).

The new wood double hung window units will "match the original feature in design, dimension, detail, color and material" as required by RHDC Guidelines, section 2.5.4.

2nd floor plan - Fire escape locations



Central wing – Existing door and metal windows (fire escape demolished in Phase 1)



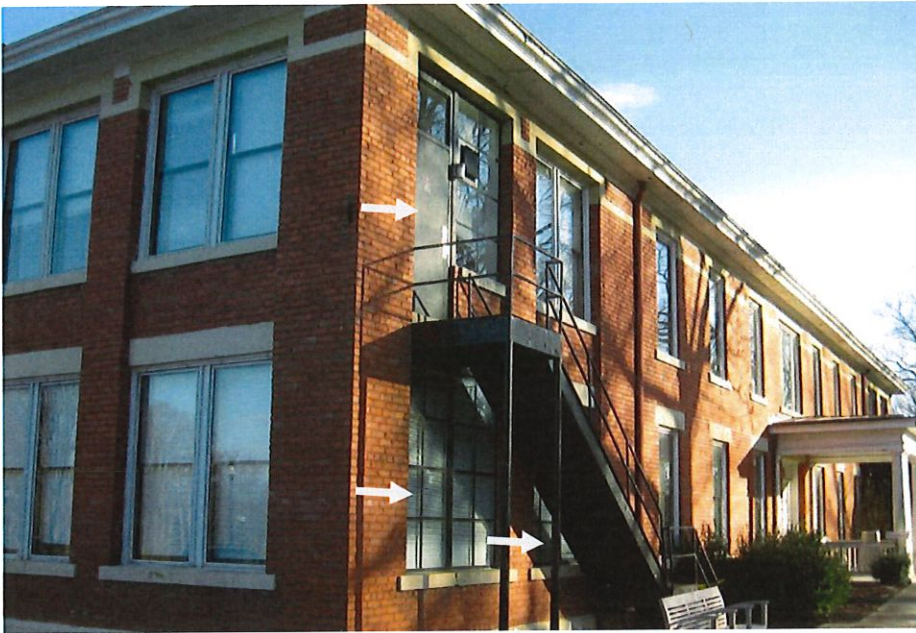
Current renovation project includes:

- Replacement of the existing door located on 2nd floor with a new wood double hung window matching the adjacent windows (original design); infill the remaining portion of the opening with matching masonry.
- Replacement of all 3 black metal windows located on 1st floor with new wood windows matching the adjacent windows (original design); one of the new windows on 1st floor needs to be adjusted to incorporate a louver into the frame, as required by the new HVAC system.
- masonry restoration and cleaning.

Central wing – proposed elevation



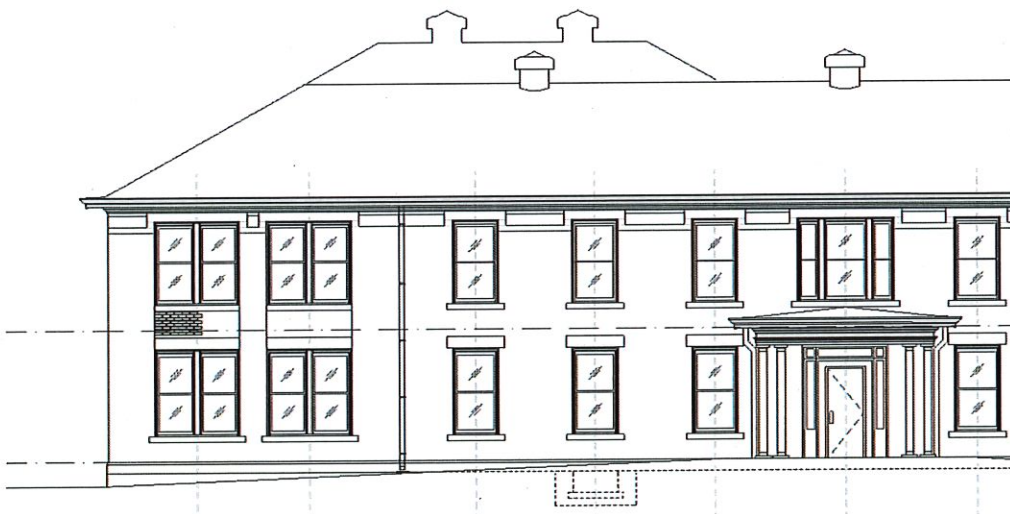
West wing – Existing fire escape, door and metal windows



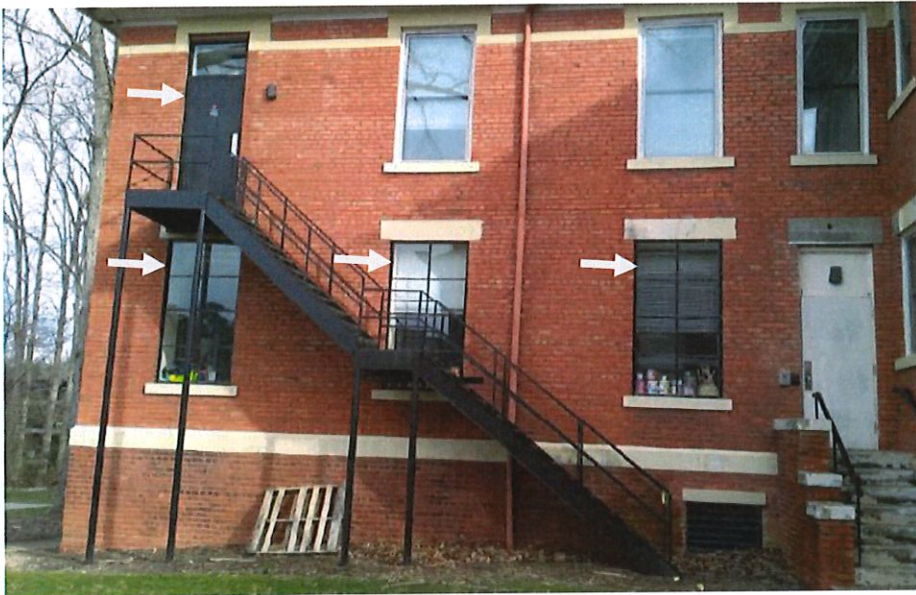
Current renovation project includes:

- Demolition of existing fire escape.
- Replacement of the existing door/metal window located on 2nd floor with a new wood double hung window matching the adjacent windows (original design); infill the remaining portion of the opening with matching masonry.
- Replacement of 2 black metal windows located on 1st floor with new double hung wood windows matching the adjacent windows (original design).
- masonry restoration and cleaning.

West wing – proposed elevation



East wing – Existing fire escape, door and metal windows



Current renovation project – see West wing work items above.

East wing – proposed elevation



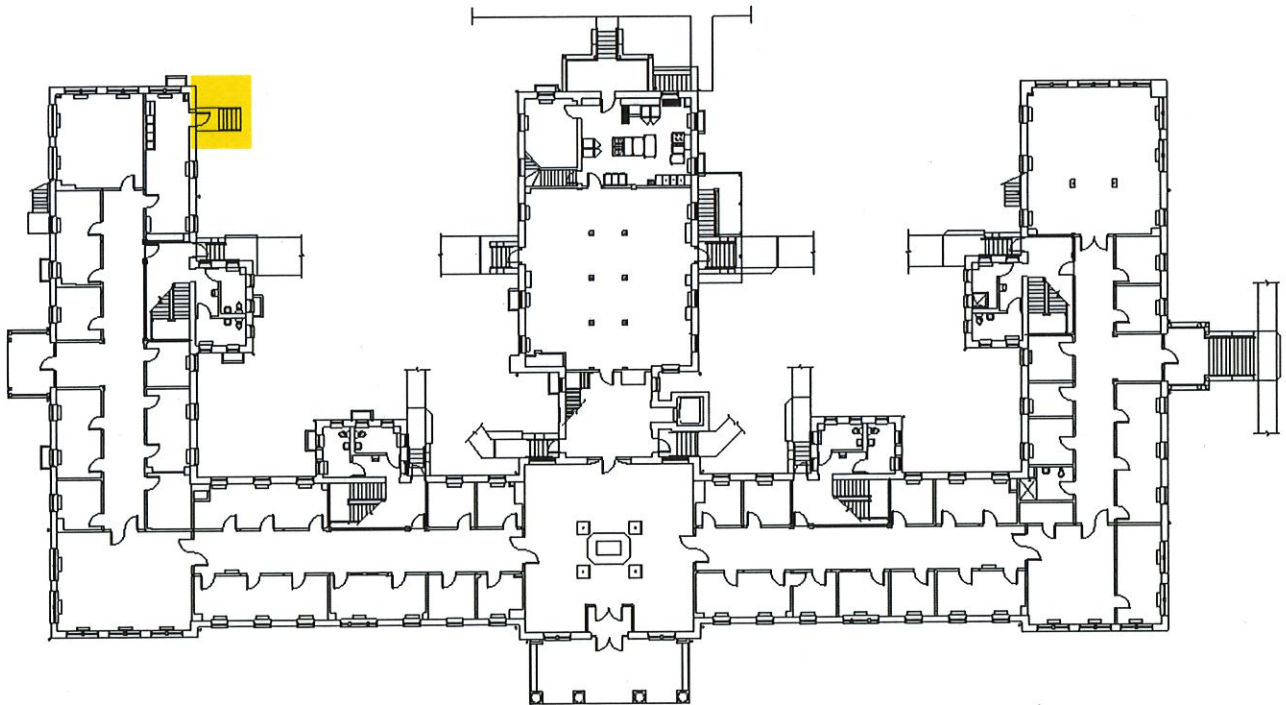
2. Exterior door/metal stair demolition

The West wing includes a room which was converted into a kitchenette/storage at one point in the past. Currently it's a vacant space, not being used as a kitchen/kitchenette anymore. The exterior door and exterior metal stair don't belong to the original bldg. design.

Our intention is to re-convert this space into an office and to demolish the exterior door/ exterior metal stair. The existing exterior door will be replaced with a new wood double hung window matching the adjacent windows.

The new wood double hung window unit will "match the original feature in design, dimension, detail, color and material" as required by RHDC Guidelines, section 2.5.4.

1st floor plan – Kitchen door/metal stair location



West wing – existing exterior door/metal stair



Current renovation project includes:

- Replacement of the existing door with a new wood double hung window matching the adjacent windows (original design); infill the remaining portion of the opening with matching masonry
- Demolition of existing metal stair

West wing – proposed elevation



3. Window sashes replacement

All existing double hung windows are in an advanced state of degradation, not operational, necessitating repairs and new paint.

Our intention is to replace existing sashes/liner of all windows, both floors (with the exception of the new window units provided as outlined above). The existing window frames, sills, interior and exterior trim remain, and will be repaired and painted.

The new wood sashes will "match the original feature in design, dimension, detail, color and material" as required by RHDC Guidelines, section 2.5.4.

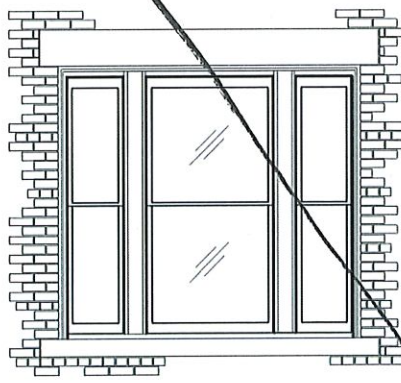
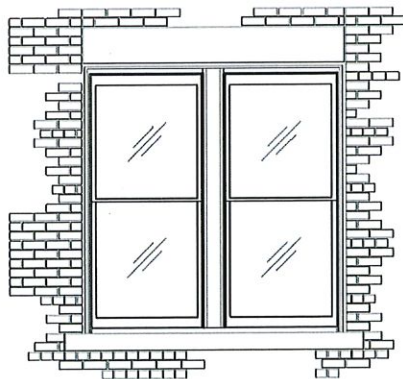
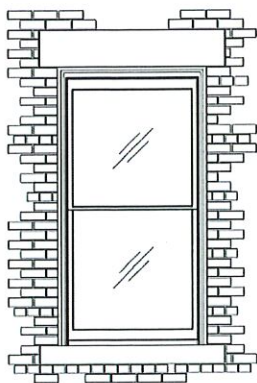
Existing windows



** removed from application. See email correspondence.*

New wood sashes and liner

Existing wood frames, sills, and trim to remain and be restored

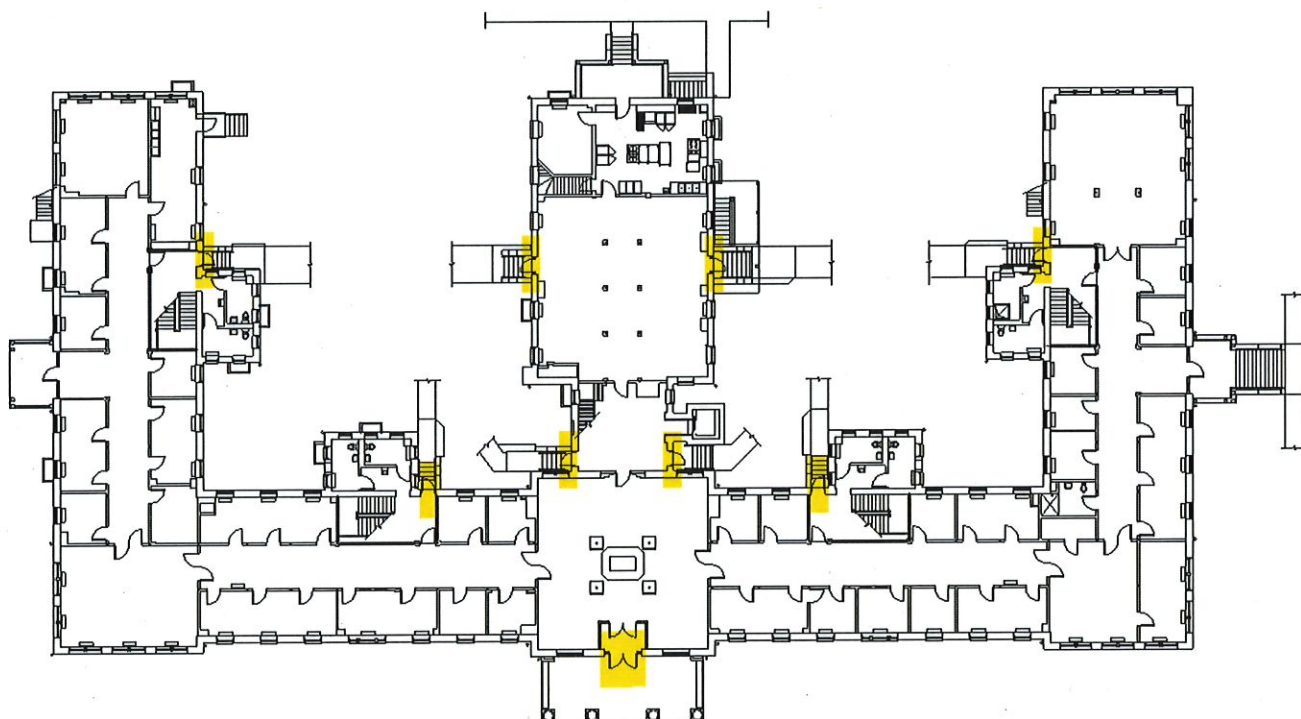


4. Exterior hollow metal doors, frames and hardware replacement

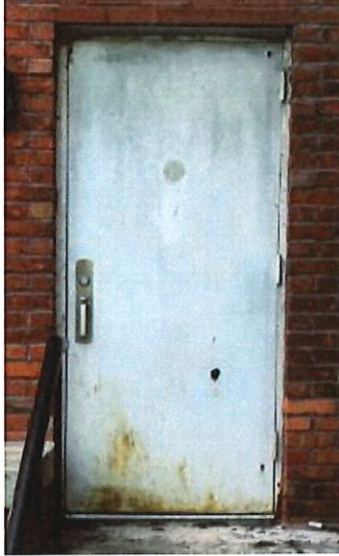
Existing exterior hollow metal doors, frames and hardware are old, not functioning properly and in an advanced state of degradation. All these components don't belong to the original bldg. design.

Our intention is to replace existing exterior doors, frames and hardware located at the back of the bldg. with new matching hollow metal components and improve the main entry appearance and functionality by using a storefront system.

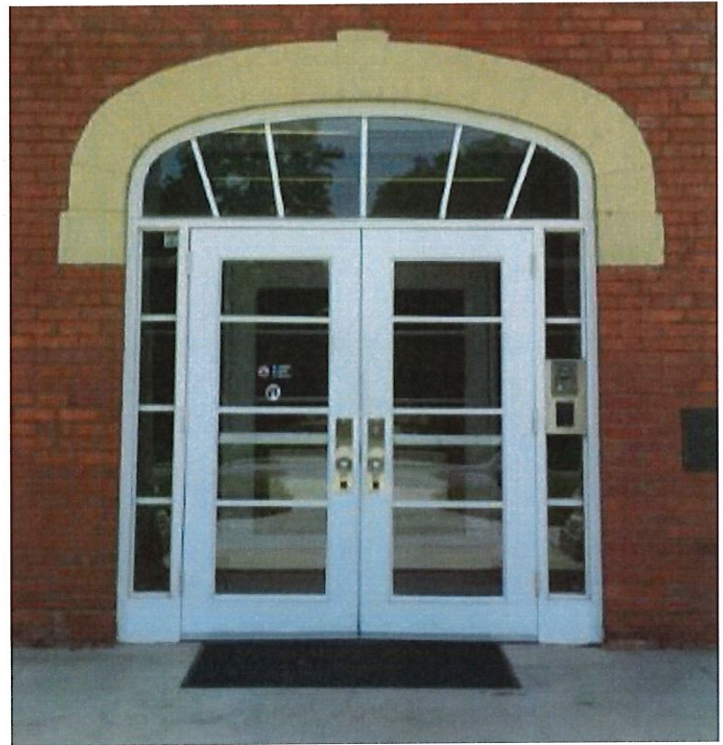
1st floor plan - exterior hollow metal doors and frames location



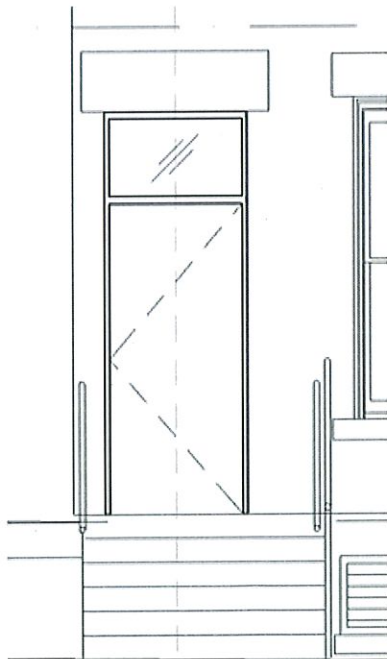
Existing exterior hollow metal doors and frames
(not original bldg. features)



Existing hollow metal main entry doors and frames assembly (not original bldg. feature)



Proposed new hollow metal doors and frames (at back of the bldg.)



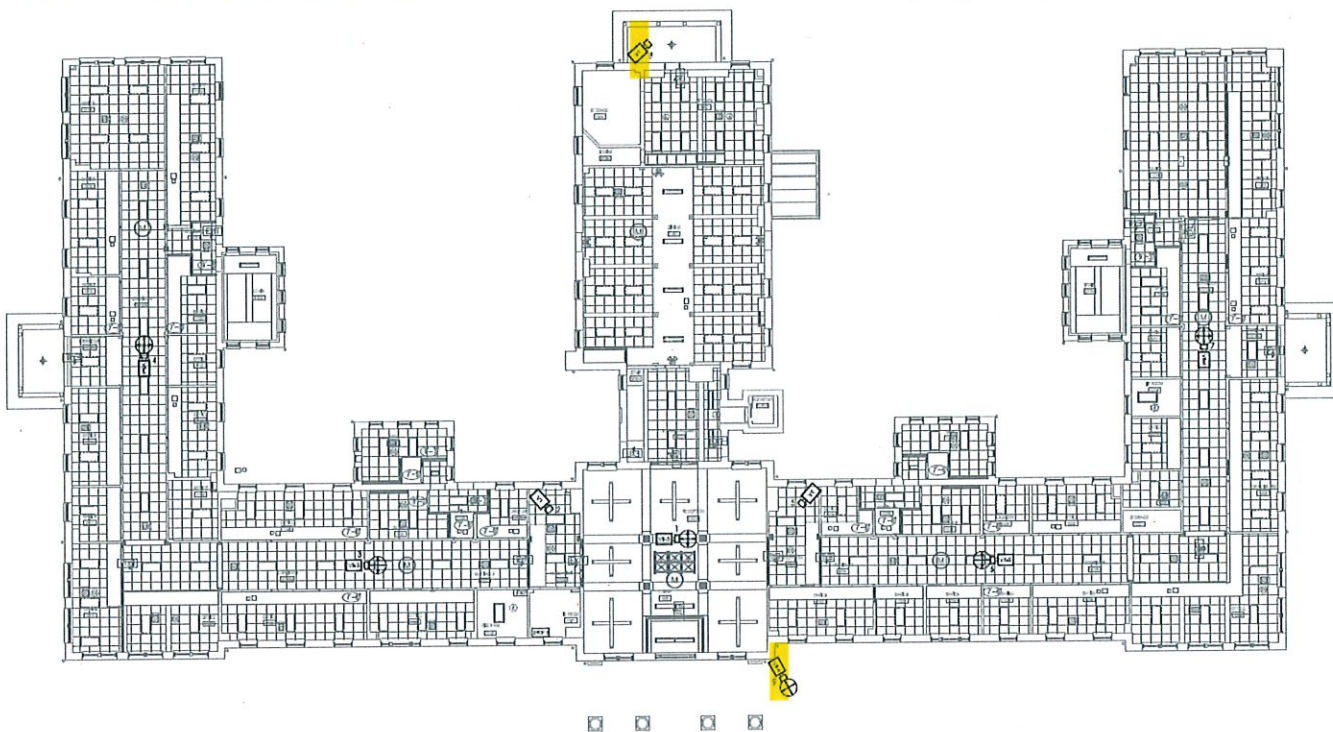
Proposed new storefront system (at main entry)



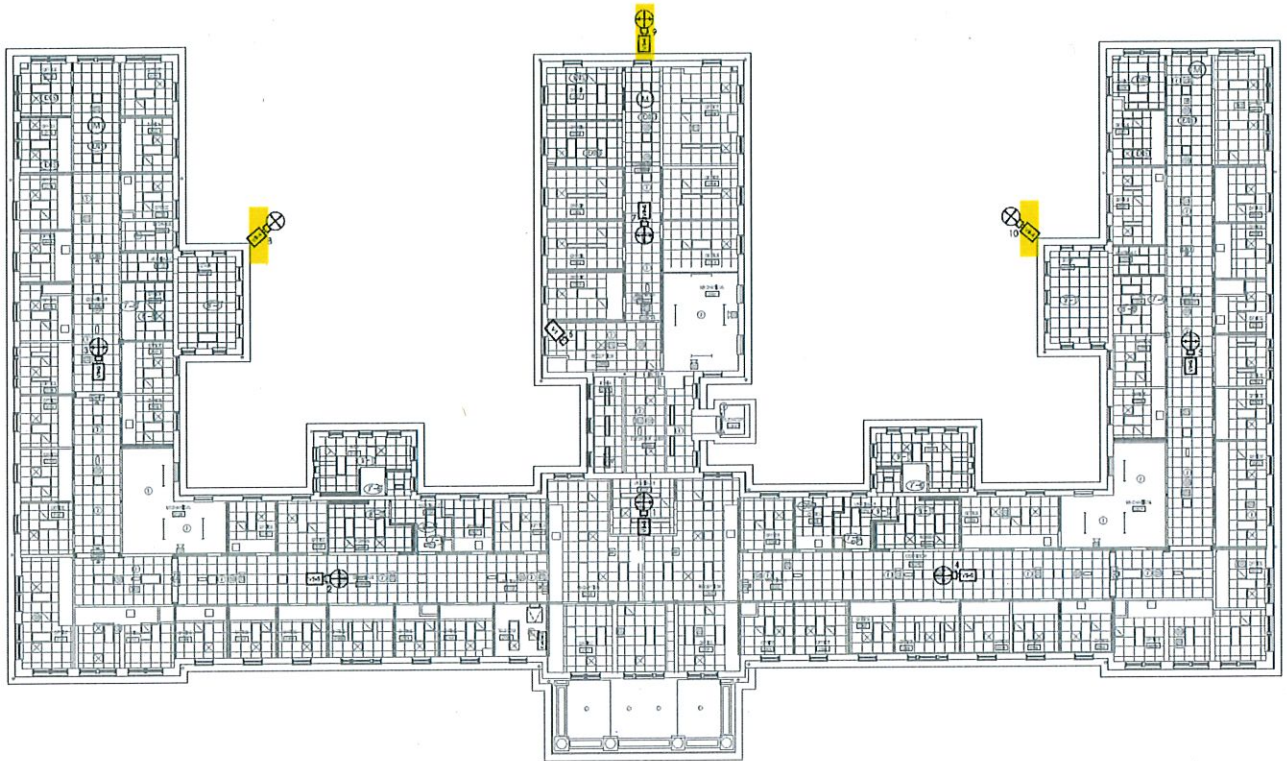
5. New exterior security cameras

Community Services Center is a Wake County owned and operated bldg. Our intention is to install new electronic video surveillance equipment and electronic security devices for improving the bldg. occupants safety. The surveillance system includes several exterior video cameras mounted under the existing roof overhangs or on the masonry walls.

1st floor – exterior video camera locations



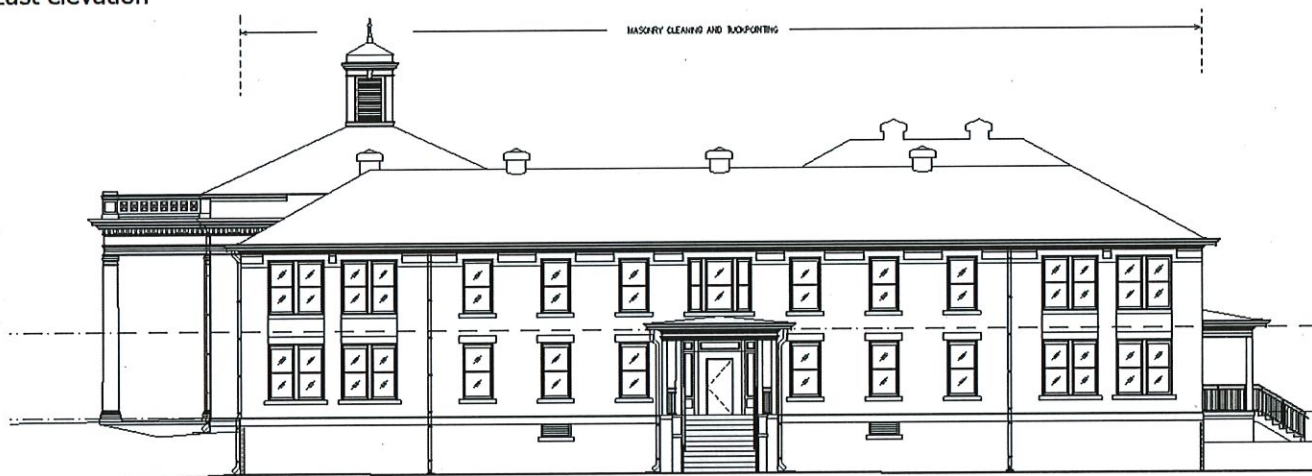
2nd floor – exterior video camera location



6. Masonry tuckpointing - East and West elevations

Our intention is to enhance the exterior bldg. appearance by cleaning and tuckpointing the old masonry walls, East and West elevations. Note: North and South elevations have been previously cleaned and tuckpointed in 2014 renovation project.

East elevation



West elevation



March 05, 2020

to
Collette R. Kinane, Preservation Planner II
Raleigh Urban Design Center
One Exchange Plaza, suite 300, Raleigh NC 27601

Re:
Community Services Center Renovation
401 E. Whitaker Mill Rd., Raleigh NC
COR Plan No.COA-0064-2020

This letter is being written in response to the list of comments received with regards to the above referenced project. The items below correspond to the comments received by email on May 1st, 2020 (printed in **bold**), followed by our responses.

Please let us know if any other information is required.

Sebastian Duca AIA
Davis Kane Architects, P.A.
sduca@daviskane.com



1. Fire Escape Removal:
No questions. This can be approved.

2. Metal Window Replacement and Fire Exit Door conversion:
Please provide manufacturer's specifications for the windows. Pending receipt of that information, this can be approved.

Response:

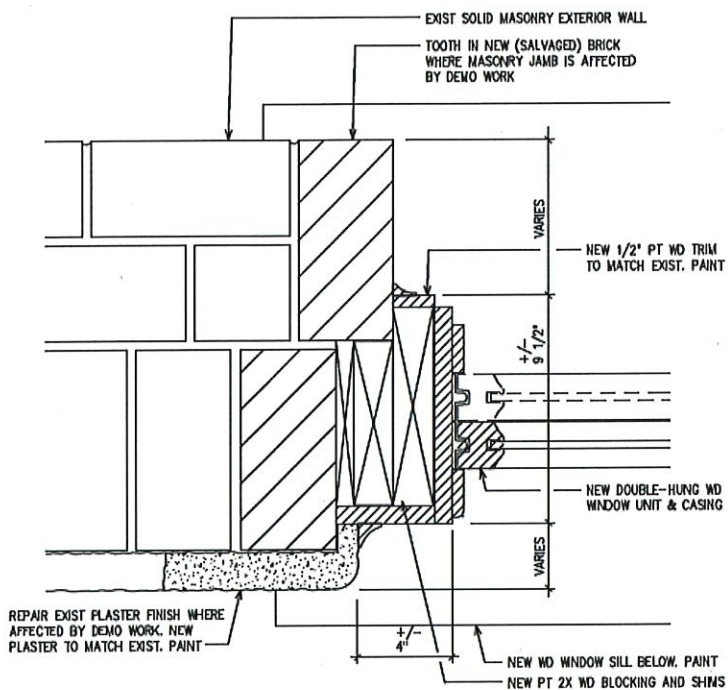
This is a public project and therefore the specifications are written in a non-proprietary format with three or more brand names/manufacturers included.

In order to ensure that the new windows follow the RHDC Guidelines (new features to "match the original feature in design, dimension, detail, color and material") we've included the following provisions in the project specifications, Section 085200 – Wood Windows:
(full Section 085200 attached)

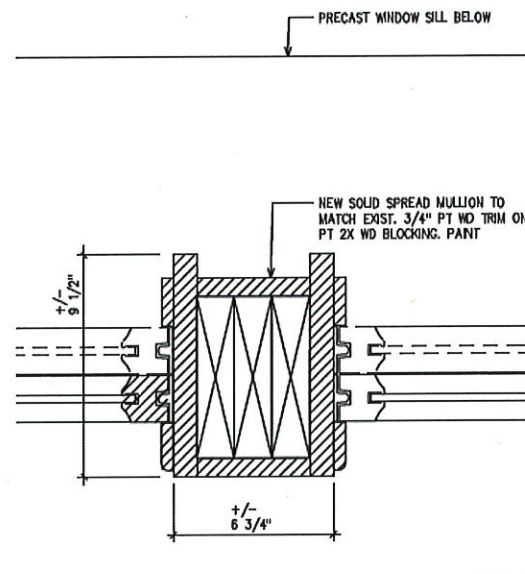
2.3 WOOD WINDOWS

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Crestline Windows and Doors.
 - b. Hurd Windows and Doors.
 - c. Intus Windows.
 - d. Jeld-Wen, Inc.
 - e. Kolbe & Kolbe Millwork Co., Inc.
 - f. Marvin Windows and Doors.
 - g. Pella Corporation.
 - h. Sierra Pacific Windows; Sierra Pacific Industries.
 - i. Weather Shield Mfg., Inc.
- B. Operating Types: Provide the following operating types in locations indicated on Drawings:
 1. Double hung.
- C. Frames and Sashes: Fine-grained wood lumber complying with AAMA/WDMA/CSA 101/I.S.2/A440; kiln dried to a moisture content of not more than 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than 1/32 inch (0.8 mm) deep by 2 inches (51 mm) wide; water-repellent preservative treated.
 1. Exterior Finish: Manufacturer's standard factory-prime coat wood.
 - a. Exposed Unfinished Wood Surfaces: Manufacturer's standard paint-grade species.
 - b. Color: match existing
 2. Interior Finish: Manufacturer's standard stain-and-varnish finish.
 - a. Exposed Unfinished Wood Surfaces: Manufacturer's standard species.
 - b. Color: match existing

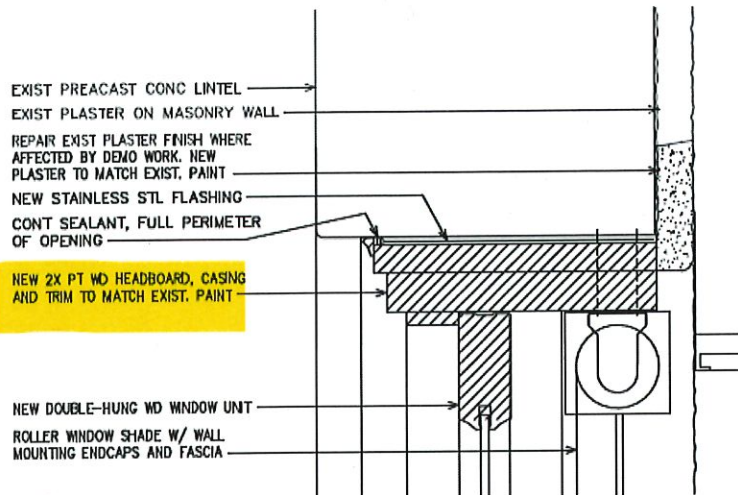
Also, our drawings include precise construction details which match existing double-hung wood windows design. Please see below.



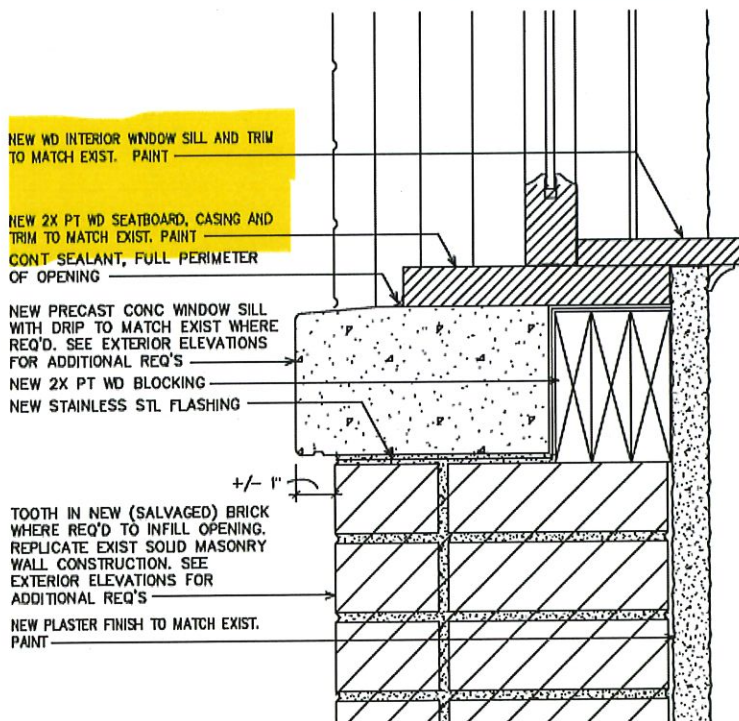
F1 WINDOW JAMB DETAILS - 1ST FLOOR
3" : 1'-0"



NOTE:
ALL NEW WINDOW COMPONENTS TO MATCH SIZE, SHAPE
AND MATERIAL (WOOD) OF EXISTING UNITS.
ALL DIMENSIONS ARE +/- AND TO BE SITE VERIFIED.



J5 WINDOW HEAD DETAIL
3" : 1'-0"



F5 WINDOW SILL DETAIL
3" : 1'-0"

3. Kitchen Door & Metal Stair Removal:

Could you provide a closer photograph of the door? As above, pending receipt of window specifications and the closer photo of the door, this can be approved.

Response:

Please see the requested photo below. Please note the concrete lintel size in relation to the door and the infill masonry on the right side of the frame. It indicates that the door was not part of the original design and more than likely it replaced the original double hung wood window.

Our intention is to restore the façade to the original design intent and install again a new double hung wood window matching the lintel size and adjacent windows design, as per specifications and details included in the response to question no.2.



4. Exterior Door Replacement:

Please provide manufacturer's specifications for the new doors. Pending receipt of that information, this can be approved.

Response:

As mentioned above, this is a public project and therefore the specifications are written in a non-proprietary format with three or more brand names/manufacturers included.

Existing exterior doors, frames and hardware are not the original bldg. features. They're old, not functioning properly and in an advanced state of degradation. Our intention is to replace existing exterior metal doors, frames and hardware with new matching components and add card readers for security reasons.
(full Section 081113 attached)

Section 081113 – Hollow Metal Steel Doors and Frames include the following provisions:

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. Amweld Building Products, LLC.
 2. Ceco Door Products; an ASSA ABLOY Group Company.
 3. CURRIES Company; an ASSA ABLOY Group Company.
 4. Fleming Door Products Ltd.; an ASSA ABLOY Group Company.

5. Security Cameras:

No questions. This can be approved.

6. Tuckpointing:

Could you provide a before and after photo of the previous work on the east or west elevation that you plan to match? Pending receipt of that information, this could be approved. Please keep in mind **Design Guideline 2.2.5: "Repoint masonry mortar joints if the mortar is cracked, crumbling, or missing or if damp walls or damaged plaster indicate moisture penetration. Before repointing, carefully remove deteriorated mortar using hand tools. Replace the mortar with new mortar that duplicates the original in strength, color, texture, and composition. Match the original mortar joints in width and profile."**

Response:

East and West elevations haven't been recently (or ever?) tuckpointed. We're not sure if the existing masonry mortar is original or there was some restoration work done at one point in time. The existing mortar is cracked or missing in multiple locations and needs to be restored, see photos below.

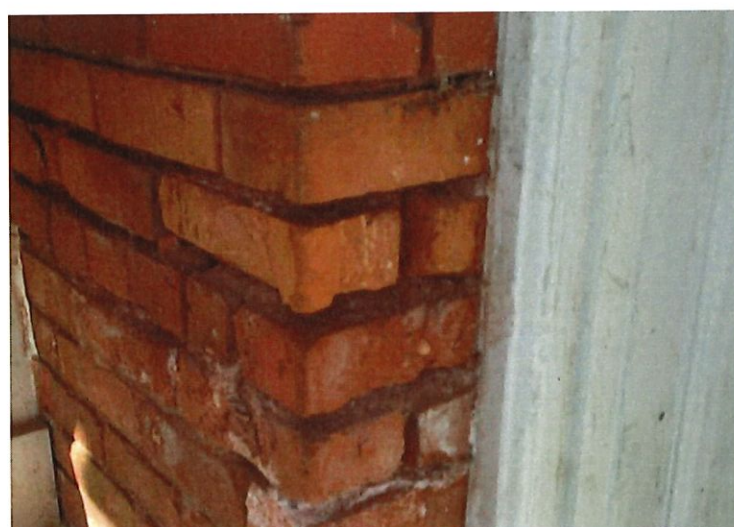
In 2014 we renovated North and South elevations and tuckpointed the mortar, please photos below.

The provisions included in the project specifications, Section 049010 – Masonry Restoration, are in accordance with Design Guidelines 2.2.5 as shown below:

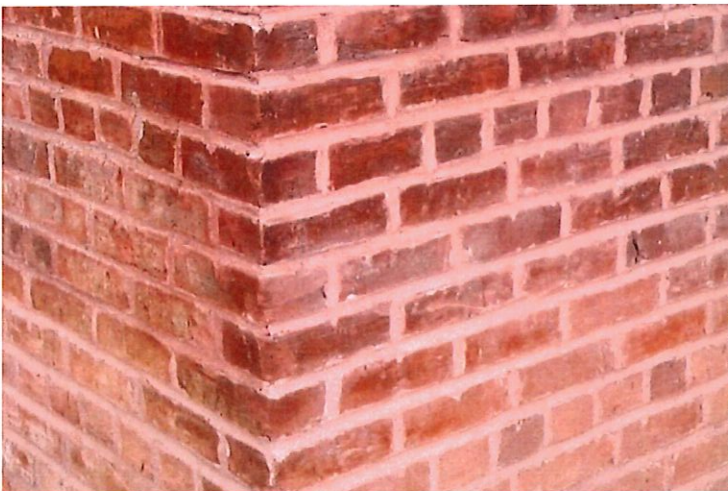
3.3 REPOINTING MASONRY

- B. Areas designated to be tuckpointed will be examined with Architect and Owner present. Areas deemed as stable and not in need of tuckpointing will not be part of the scope of Work. Area requiring brick repair or replacement will be undertaken prior to tuckpointing activities.
- C. Grind or rake out and repoint mortar joints to the following extent:
 - 1. All joints in areas indicated except as otherwise noted.
 - 2. Joints where mortar is missing or where they contain holes.
 - 3. Cracked joints where cracks can be penetrated at least **1/4 inch** by a knife blade **0.027 inch** thick.
 - 4. Cracked joints where cracks are **1/8 inch** or more in width and of any depth.
 - 5. Joints where they sound hollow when tapped by metal object.
 - 6. Joints where they are worn back **1/4 inch** or more from surface.
 - 7. Joints where they are deteriorated to point that mortar can be easily removed by hand.
 - 8. Joints, other than those indicated as sealant-filled joints, where they have been filled with substances other than mortar.
- D. Do not rake out and repoint joints where not required.
- E. Rake out joints as follows:
 - 1. Remove mortar from joints to depth of 2 times joint width, but not less than **1/2 inch** or not less than that required to expose sound, unweathered mortar.
 - 2. Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
 - 3. Do not spall edges of masonry units or widen joints. Replace or patch damaged masonry units as directed by Architect. Remove mortar by one of the following techniques.
 - a. Cut out mortar by hand with chisel and mallet. Do not use power-operated grinders without Architect's written approval based on submission by Contractor of a satisfactory quality-control program and demonstrated ability of operators to use tools without damaging masonry. Quality-control program shall include provisions for supervising performance and preventing damage due to worker fatigue.
 - b. Cut out center of mortar bed joints using angle grinders with diamond-impregnated metal blades. Remove remaining mortar by hand with chisel and mallet. Strictly adhere to written quality-control program. Quality-control program shall include provisions for demonstrating ability of operators to use tools without damaging masonry, supervising performance, and preventing damage due to worker fatigue.

Existing conditions
(multiple locations on East and West elevations)



Restored masonry on South and North elevations
(2014 renovation project)



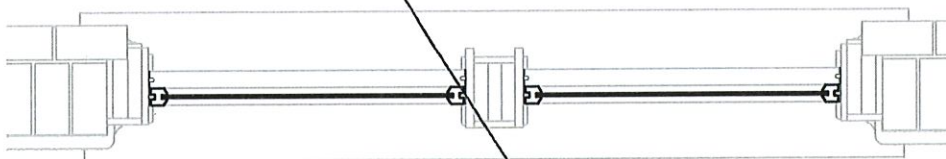
7. Window Sash Replacement:

This is a larger item that requires more information before we can determine if it could be approved by staff. I've read through our file on the property and some reference is given to window work that was completed or requested in 1997. Do you have any knowledge or files on the extent of that work? In order for window replacement to be a staff approvable item, we need clear evidence that the windows are damaged or deteriorated beyond repair. This typically includes detailed photographs of each window to be replaced and an assessment by a preservation professional that the windows cannot be repaired. Alternatively, any evidence you could provide that the windows are not historic would be very helpful.

Response:

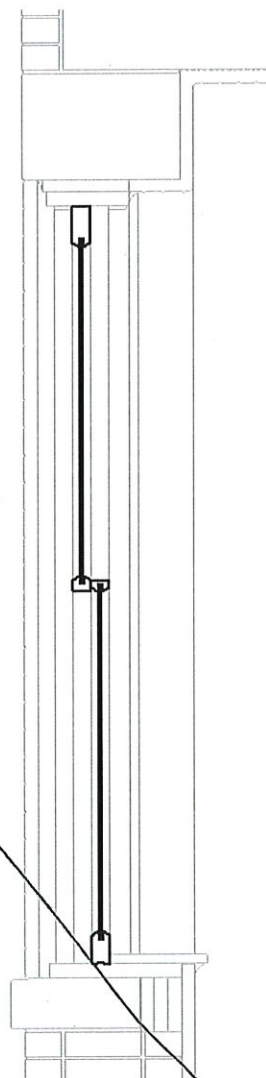
I'm not familiar with the window renovation work completed in 1997. In our opinion, the windows look much older and the 1997 work included probably repair, restoration, or new paint only.

Our intention is not to replace the entire window. Only the sashes will be replaced with matching components. The existing window frames, mullions, sills, interior and exterior trim remain, and will be repaired as needed and painted. The exterior building appearance will remain unchanged.



Window plan detail
Sash replacement shown with **bold** lines

** Removed from application. See email correspondence.*



Window section
Sash replacement shown with **bold** lines

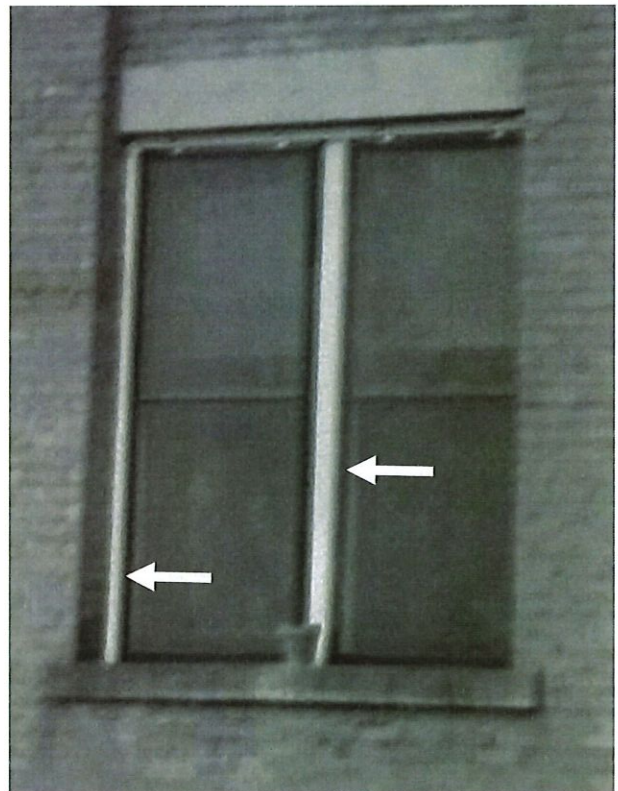
The scope includes the sash replacement for 218 windows (the entire bldg.). The vast majority are in various stages of degradation, painted stuck, with the liner damaged or painted over which is making the sashes unfunctional.

Looking at the photos below and comparing the current conditions with the 1947 fire photos, it seems that certain window features were changed at that point. Please note the existing vertical reveals/trim on the window central mullion and the size of the frame.

Current conditions



1947 Fire Photos



SECTION 085200 - WOOD WINDOWS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes double-hung wood windows.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference:
 - 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Review, discuss, and coordinate the interrelationship of wood windows with other exterior wall components. Include provisions for anchoring, flashing, weeping, sealing perimeters, and protecting finishes.
 - 3. Review and discuss the sequence of work required to construct a watertight and weathertight exterior building envelope.
 - 4. Inspect and discuss the condition of substrate and other preparatory work performed by other trades.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, glazing and fabrication methods, dimensions of individual components and profiles, hardware, and finishes for wood windows.
- B. Shop Drawings: For wood windows.
 - 1. Include plans, elevations, sections, hardware, accessories, insect screens, operational clearances, and details of installation, including anchor, flashing, and sealant installation.
- C. Samples: For each exposed product and for each color specified, 2 by 4 inches (50 by 100 mm) in size.
- D. Samples for Initial Selection: For units with factory-applied finishes.
 - 1. Include Samples of hardware and accessories involving color selection.

E. Samples for Verification: For wood windows and components required, prepared on Samples of size indicated below:

1. Exposed Finishes: 2 by 4 inches (50 by 100 mm).
2. Exposed Hardware: Full-size units.

F. Product Schedule: For wood windows. Use same designations indicated on Drawings.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For each type of wood window, for tests performed by a qualified testing agency.
- C. Field quality-control reports.
- D. Sample Warranties: For manufacturer's warranties.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An installer acceptable to wood window manufacturer for installation of units required for this Project.
- B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
 1. Build mockup of typical wall area as shown on Drawings.
 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace wood windows that fail in materials or workmanship within specified warranty period.
 1. Failures include, but are not limited to, the following:
 - a. Failure to meet performance requirements.
 - b. Structural failures including excessive deflection, water leakage, and air infiltration.
 - c. Faulty operation of movable sash and hardware.
 - d. Deterioration of materials and finishes beyond normal weathering.
 - e. Failure of insulating glass.
 2. Warranty Period:

- a. Window: 20 years from date of Substantial Completion.
- b. Glazing Units: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain wood windows from single source from single manufacturer.

2.2 WINDOW PERFORMANCE REQUIREMENTS

- A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
- B. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.32 Btu/sq. ft. x h x deg F (1.83 W/sq. m x K).
- C. Solar Heat-Gain Coefficient (SHGC): NFRC 200 maximum whole-window SHGC of 0.30.
- D. Sound Transmission Class (STC): Rated for not less than 30 STC when tested for laboratory sound transmission loss according to ASTM E90 and determined by ASTM E413.
- E. Outside-Inside Transmission Class (OITC): Rated for not less than 26 OITC when tested for laboratory sound transmission loss according to ASTM E90 and determined by ASTM E1332.
- F. Windborne-Debris Impact Resistance: Passes ASTM E1886 missile-impact and cyclic-pressure tests in accordance with ASTM E1996 for associated Wind Zone.

2.3 WOOD WINDOWS

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Crestline Windows and Doors.
 - b. Hurd Windows and Doors.
 - c. Intus Windows.
 - d. Jeld-Wen, Inc.
 - e. Kolbe & Kolbe Millwork Co., Inc.
 - f. Marvin Windows and Doors.
 - g. Pella Corporation.
 - h. Sierra Pacific Windows; Sierra Pacific Industries.
 - i. Weather Shield Mfg., Inc.
- B. Operating Types: Provide the following operating types in locations indicated on Drawings:
 - 1. Double hung.

- C. Frames and Sashes: Fine-grained wood lumber complying with AAMA/WDMA/CSA 101/I.S.2/A440; kiln dried to a moisture content of not more than 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than 1/32 inch (0.8 mm) deep by 2 inches (51 mm) wide; water-repellent preservative treated.
 - 1. Exterior Finish: Manufacturer's standard factory-prime coat wood.
 - a. Exposed Unfinished Wood Surfaces: Manufacturer's standard paint-grade species.
 - b. Color: match existing
 - 2. Interior Finish: Manufacturer's standard stain-and-varnish finish.
 - a. Exposed Unfinished Wood Surfaces: Manufacturer's standard species.
 - b. Color: match existing.
- D. Glass: Clear annealed glass, ASTM C1036, Type 1, Class 1, q3.
 - 1. Description: Two panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.
 - 2. Overall Nominal Thickness: 3/4 inch (19 mm).
- E. Hardware, General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, carbon steel complying with AAMA 907, or other corrosion-resistant material compatible with adjacent materials; designed to smoothly operate, tightly close, and securely lock windows, and sized to accommodate sash weight and dimensions.
 - 1. Exposed Hardware Color and Finish: As selected by Architect from manufacturer's full range.
- F. Double Hung Window Hardware:
 - 1. Balance: dual block and tackle
 - 2. Lock: recessed cam action
 - 3. Finish: match existing
- G. Weather Stripping:
 - 1. Double hung windows: dual bulb at head and sill, thermoplastic rubber at check rail, rigid vinyl water stops at sill.
- H. Fasteners: Noncorrosive and compatible with window members, trim, hardware, anchors, and other components.
 - 1. Exposed Fasteners: Do not use exposed fasteners to greatest extent possible. For application of hardware, use fasteners that match finish hardware being fastened.

2.4 FABRICATION

- A. Fabricate wood windows in sizes indicated. Include a complete system for installing and anchoring windows.

- B. Glaze wood windows in the factory.
- C. Weather strip each operable sash to provide weathertight installation.
- D. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation. Allow for scribing, trimming, and fitting at Project site.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Verify rough opening dimensions, levelness of sill plate, and operational clearances.
- C. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure weathertight window installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E2112.
- B. Install windows level, plumb, square, true to line, without distortion, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.

3.3 ADJUSTING, CLEANING, AND PROTECTION

- A. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.
- B. Clean exposed surfaces immediately after installing windows. Remove excess sealants, glazing materials, dirt, and other substances.
 - 1. Keep protective films and coverings in place until final cleaning.
- C. Remove and replace sashes if glass has been broken, chipped, cracked, abraded, or damaged during construction period.

- D. Protect window surfaces from contact with contaminating substances resulting from construction operations. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written instructions.

END OF SECTION 085200

SECTION 081113 – HOLLOW METAL STEEL DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Standard hollow-metal steel doors.
 - 2. Standard hollow-metal steel frames.
- B. Related Sections include the following:
 - 1. Division 8 Section "Glazing" for glazed lites in standard steel doors and frames.
 - 2. Division 8 Section "Flush Wood Doors" for wood doors installed in standard steel frames.
 - 3. Division 8 Section "Door Hardware" for door hardware for standard steel doors.
 - 4. Division 9 Section "Interior Painting" and "High-Performance Coatings" for field painting standard steel doors and frames.

1.3 DEFINITIONS

- A. Steel Sheet Thicknesses: Thickness dimensions, including those referenced in ANSI A250.8, are minimums as defined in referenced ASTM standards for both uncoated steel sheet and the uncoated base metal of metallic-coated steel sheets.

1.4 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, core descriptions, label compliance, fire-resistance rating, and finishes for each type of steel door and frame specified.
- B. Shop Drawings: In addition to requirements below, provide a schedule of standard steel doors and frames using same reference numbers for details and openings as those on Drawings:
 - 1. Elevations of each door design.
 - 2. Details of doors, including vertical and horizontal edge details.
 - 3. Frame details for each frame type, including dimensioned profiles.
 - 4. Details and locations of reinforcement and preparations for hardware.
 - 5. Details of each different wall opening condition.
 - 6. Details of anchorages, accessories, joints, and connections.
 - 7. Details of glazing frames and stops showing glazing.
 - 8. Details of conduit and preparations for electrified door hardware and controls.
- C. Product Test Reports: Based on evaluation of comprehensive fire tests performed by a qualified testing agency, for each type of standard steel door and frame.

- D. Door Schedule: Submit schedule of doors and frames using same reference numbers for details and openings as those on Drawings.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Source Limitations: Obtain standard steel doors and frames through one source from a single manufacturer.
- C. Fire-Rated Assemblies: Complying with NFPA 80 and listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.
 - 1. Smoke- and Draft-Control Assemblies: Provide an assembly with gaskets listed and labeled for smoke and draft control by a qualified testing agency acceptable to authorities having jurisdiction, based on testing according to UL 1784 and installed in compliance with NFPA 105.
- D. Fire-Rated, Borrowed-Light Assemblies: Complying with NFPA 80 and listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing according to NFPA 257 or UL 9.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver doors and frames palletized, wrapped, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store doors and frames under cover at Project site. Place units in a vertical position with heads up, spaced by blocking, on minimum 4-inch- high wood blocking. Avoid using nonvented plastic or canvas shelters that could create a humidity chamber.
 - 1. If wrappers on doors become wet, remove cartons immediately. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify openings by field measurements before fabrication and indicate measurements on Shop Drawings.
 - 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish opening dimensions and proceed with fabricating standard steel frames without field measurements. Coordinate wall construction to ensure that actual opening dimensions correspond to established dimensions.

1.8 COORDINATION

- A. Coordinate installation of anchorages for standard steel frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with

integral anchors, that are to be embedded in masonry. Deliver such items to Project site in time for installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Amweld Building Products, LLC.
2. Ceco Door Products; an ASSA ABLOY Group Company.
3. CURRIES Company; an ASSA ABLOY Group Company.
4. Fleming Door Products Ltd.; an ASSA ABLOY Group Company.

2.2 MATERIALS

- A. Recycled-Content Steel
1. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
 2. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
 3. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum A60 zinc-iron-alloy (galvannealed) coating designation.
 4. Electrolytic Zinc-Coated Steel Sheet: ASTM A 591/A 591M, Commercial Steel (CS), Class B coating; mill phosphatized.
- B. Supports and Anchors: After fabricating, galvanize units to be built into exterior walls according to ASTM A 153/A 153M, Class B.
- C. Inserts, Bolts, and Fasteners: Provide items to be built into exterior walls, hot-dip galvanized according to ASTM A 153/A 153M.
- D. Powder-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching standard steel door frames of type indicated.
- E. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool with 6- to 12-lb/cu. ft. density; with maximum flame-spread and smoke-developed indexes of 25 and 50 respectively; passing ASTM E 136 for combustion characteristics.
- F. Glazing: Comply with requirements in Division 8 Section "Glazing."
- G. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

2.3 STEEL DOORS

- A. General: Provide doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces, unless otherwise indicated. Comply with ANSI A250.8.
 - 1. Design: Flush panel.
 - 2. Core Construction: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, mineral-board, or vertical steel-stiffener core that produces doors complying with ANSI A250.8.
 - a. Fire Door Core: As required to provide fire-protection ratings indicated.
 - 3. Vertical Edges for Single-Acting Doors: Beveled edge.
 - a. Beveled Edge: 1/8 inch in 2 inches.
 - 4. Vertical Edges for Double-Acting Doors: Round vertical edges with 2-1/8-inch radius.
 - 5. Top and Bottom Edges: Closed with flush or inverted 0.042-inch- thick end closures or channels of same material as face sheets, all seams welded.
 - 6. Tolerances: Comply with SDI 117, "Manufacturing Tolerances for Standard Steel Doors and Frames."
- B. Exterior Doors: Face sheets fabricated from metallic-coated steel sheet. Provide doors complying with requirements indicated below by referencing ANSI A250.8 for level and model and ANSI A250.4 for physical-endurance level:
 - 1. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 2 (Seamless).
 - 2. Thermal-Rated Doors: Provide doors fabricated with thermal-resistance value (R-value) of not less than 2.1 deg F x h x sq. ft./Btu when tested according to ASTM C 1363.
- C. Interior Doors: Face sheets fabricated from cold-rolled steel sheet, unless otherwise indicated to comply with exterior door requirements. Provide doors complying with requirements indicated below by referencing ANSI A250.8 for level and model and ANSI A250.4 for physical-endurance level:
 - 1. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 2 (Seamless).
- D. Hardware Reinforcement: Fabricate reinforcement plates from same material as door face sheets to comply with the following minimum sizes:
 - 1. Hinges: Minimum 0.123 inch thick channel, 1-1/2 inches wide by full door height, secured by spot welds 4 inches oc.
 - 2. Pivots: Minimum 0.167 inch thick by 1-1/2 inches wide by 6 inches longer than hinge, secured by not less than 6 spot welds.
 - 3. Lock Face, Flush Bolts, Closers, and Concealed Holders: Minimum 0.067 inch thick.
 - 4. All Other Surface-Mounted Hardware: Minimum 0.067 inch thick.
- E. Fabricate concealed stiffeners and hardware reinforcement from either cold- or hot-rolled steel sheet.

2.4 STEEL FRAMES

- A. General: Comply with ANSI A250.8 and with details indicated for type and profile.
- B. Exterior Frames: Fabricated from metallic-coated steel sheet.
 - 1. Fabricate frames with mitered or coped and welded face corners and seamless face joints.

2. Frames for Level 3 Steel Doors: 0.067-inch- thick steel sheet.
 3. All exterior frames are to be thermally broken with 3/8" thick vinyl thermal barrier with vinyl compression type gasket.
- C. Interior Frames: Fabricated from cold-rolled steel sheet, unless otherwise indicated to comply with exterior frame requirements.
1. Fabricate frames with mitered or coped and welded face corners and seamless face joints.
 2. Frames for Level 3 Steel Doors: 0.053-inch- thick steel sheet.
 3. Frames for Wood Doors: 0.053-inch- thick steel sheet.
 4. Frames for Borrowed Lights: 0.053-inch- thick steel sheet.
- D. Hardware Reinforcement: Fabricate reinforcement plates from same material as frames to comply with the following minimum sizes:
1. Hinges: Minimum 0.123 inch thick by 1-1/2 inches wide by 6 inches longer than hinge, secured by not less than 6 spot welds.
 2. Pivots: Minimum 0.167 inch thick by 1-1/2 inches wide by 6 inches longer than hinge, secured by not less than 6 spot welds.
 3. Lock Face, Flush Bolts, Closers, and Concealed Holders: Minimum 0.067 inch thick.
 4. Strikes: Minimum 0.067 inches thick by full height of door secured with spot welds at 4 inches o.c.
 5. Closers: Minimum 0.093 thick channel, 1 1/2 " wide by full width of header secured with spot welds 4 inches o.c.
 6. All Other Surface-Mounted Hardware: Minimum 0.067 inch thick.
- E. Supports and Anchors: Fabricated from metallic-coated steel sheet.
- F. Kerfed Stops: Provide frames with integral kerf at door side of door stop at all locations where door is indicated to be a sound sealed door, smoke-rated door or a fire rated door. Provide manufacturer's standard friction fit neoprene or rubber seal except provide alternate seal where required for door assembly rating.
- G. Removable Mullions: Provide hollow metal steel mullion where indicated. Mullion to be prepared for keyed cylinder lock feature and be fitted with required hardware for permitting removal of mullion from frame with use of a key. Mullion to be constructed similar to frames above.
- H. Jamb Anchors:
1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
 2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
 3. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch- diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.
 4. Provide thermal barrier anchors at exterior frames.
- I. Floor Anchors: Formed from same material as frames, not less than 0.042 inch thick, and as follows:
1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.
 2. Separate Topping Concrete Slabs: Adjustable-type anchors with extension clips, allowing not less than 2-inch height adjustment. Terminate bottom of frames at finish floor surface.
 3. Provide thermal barrier anchors at exterior frames.

- J. Fabricate concealed stiffeners and hardware reinforcement from either cold- or hot-rolled steel sheet.
- K. Plaster Guards: Formed from same material as frames, not less than 0.016-inch thick.
- L. Inserts, Bolts, and Fasteners: Manufacturer's standard units. Where zinc-coated items are to be built into exterior walls, comply with ASTM A 153/A 153M, Class C or D as applicable.

2.5 STOPS AND MOLDINGS

- A. Moldings for Glazed Lites in Doors: Minimum 0.032 inch thick, fabricated from same material as door face sheet in which they are installed. Stops to be flush type with finish face flush with door face.
- B. Fixed Frame Moldings: Formed integral with standard steel frames, minimum 5/8 inch high, unless otherwise indicated.
- C. Loose Stops for Glazed Lites in Frames: Minimum 0.032 inch thick, fabricated from same material as frames in which they are installed.
- D. Hospital Stops: Where indicated on interior door frames, terminate stops 6 inches above finish floor with a 45-degree angle cut, and close open end of stop with steel sheet closure. Cover opening in extension of frame with welded-steel filler plate, with welds ground smooth and flush with frame.
 - 1. Provide terminated stops where indicated.

2.6 FABRICATION

- A. General: Fabricate standard steel doors and frames to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
- B. Steel Doors:
 - 1. Exterior Doors: Provide weep-hole openings in bottom of exterior doors to permit moisture to escape. Close top and bottom edges of doors flush as an integral part of door construction or by addition of 0.053-inch- thick, metallic-coated steel channels with inverted channel placed flush with top and bottom edges, all seams fully welded.
 - 2. Glazed Lites: Factory cut openings in doors.
 - 3. Exterior doors to be filled with foamed-in-place polyurethane plastic insulation after door fabrication.
- C. Steel Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
 - 1. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
 - 2. Sidelight and Transom Bar Frames: Provide closed tubular members with no visible face seams or joints; fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
 - 3. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners, unless otherwise indicated. Use exposed fasteners only with prior approval of Architect. Exposed fasteners shall be flush or recessed from frame face.

4. Plaster Guards: Weld guards to frame at back of hardware mortises in frames installed in concrete or masonry.
 5. Where installed in masonry, leave vertical mullions in frames open at top for grouting.
 6. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
 7. Jamb Anchors: Provide number and spacing of anchors as follows:
 - a. Masonry Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
 - 1) Two anchors per jamb up to 60 inches in height.
 - 2) Three anchors per jamb from 60 to 90 inches in height.
 - 3) Four anchors per jamb from 90 to 120 inches in height.
 - 4) Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof more than 120 inches in height.
 - b. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
 - 1) Three anchors per jamb up to 60 inches in height.
 - 2) Four anchors per jamb from 60 to 90 inches in height.
 - 3) Five anchors per jamb from 90 to 96 inches in height.
 - 4) Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof more than 96 inches in height.
 - 5) Two anchors per head for frames more than 42 inches wide and mounted in metal-stud partitions.
 - c. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c. Post-installed anchors shall be provided with integral metal tubes welded to backing plates to prevent deformation of door frame.
 8. Door Silencers: Except on weather-stripped doors and unless indicated otherwise, drill stops to receive door silencers as follows.
 - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
 - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
 - c. Provide plastic plugs to keep holes clear during construction.
- D. Hardware Preparation: Factory prepare standard steel doors and frames to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping, according to the Door Hardware Schedule and templates furnished as specified in Division 8 Section "Door Hardware."
1. Reinforce doors and frames to receive nontemplated mortised and surface-mounted door hardware.
 2. Comply with applicable requirements in ANSI A250.6 and ANSI/DHI A115 Series specifications for door and frame preparation for hardware. Locate hardware as indicated on Shop Drawings or, if not indicated, according to ANSI A250.8.
- E. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints.
1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of door or frame.
 2. Multiple Glazed Lites: Provide fixed and removable stops and moldings such that each glazed lite is capable of being removed independently.

3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
4. Provide flush type loose stops and moldings on inside of doors and frames.
5. Coordinate rabbet width between fixed and removable stops with type of glazing and type of installation indicated.

2.7 STEEL FINISHES

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 1. Finish standard steel door and frames after assembly.
- B. Metallic-Coated Steel Surface Preparation: Clean surfaces with nonpetroleum solvent so surfaces are free of oil and other contaminants. After cleaning, apply a conversion coating suited to the organic coating to be applied over it. Clean welds, mechanical connections, and abraded areas, and apply galvanizing repair paint specified below to comply with ASTM A 780.
 1. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in steel, complying with SSPC-Paint 20.
- C. Steel Surface Preparation: Clean surfaces to comply with SSPC-SP 1, "Solvent Cleaning"; remove dirt, oil, grease, or other contaminants that could impair paint bond. Remove mill scale and rust, if present, from uncoated steel; comply with SSPC-SP 3, "Power Tool Cleaning," or SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
- D. Factory Priming for Field-Painted Finish: Apply shop primer specified below immediately after surface preparation and pretreatment. Apply a smooth coat of even consistency to provide a uniform dry film thickness of not less than 0.7 mils.
 1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; compatible with substrate and field-applied finish paint system indicated; and providing a sound foundation for field-applied topcoats despite prolonged exposure.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of standard steel doors and frames.
 1. Examine roughing-in for embedded and built-in anchors to verify actual locations of standard steel frame connections before frame installation.
 2. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
 3. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory.

- B. Prior to installation and with installation spreaders in place, adjust and securely brace standard steel door frames for squareness, alignment, twist, and plumb to the following tolerances:
1. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 2. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
 3. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 4. Plumbness: Plus or minus 1/16 inch, measured at jambs on a perpendicular line from head to floor.
- C. Drill and tap doors and frames to receive nontemplated mortised and surface-mounted door hardware.

3.3 INSTALLATION

- A. General: Provide doors and frames of sizes, thicknesses, and designs indicated. Install standard steel doors and frames plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.
- B. Standard Steel Frames: Install standard steel frames for doors sidelights transoms borrowed lights and other openings, of size and profile indicated. Comply with SDI 105.
1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
 - a. At fire-protection-rated openings, install frames according to NFPA 80.
 - b. Where frames are fabricated in sections due to shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
 - c. Install frames with removable glazing stops located on secure side of opening.
 - d. Install door silencers in frames before grouting.
 - e. Remove temporary braces necessary for installation only after frames have been properly set and secured.
 - f. Check plumb, squareness, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
 - g. Apply bituminous coating to backs of frames that are filled with mortar, grout, and plaster containing antifreezing agents.
 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor and secure with postinstalled expansion anchors.
 - a. Floor anchors may be set with powder-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
 3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation behind frames.
 4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with mortar as specified in Division 4 Section "Unit Masonry Assemblies."
 5. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
 6. Installation Tolerances: Adjust steel door frames for squareness, alignment, twist, and plumb to the following tolerances:

- a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.
- C. Steel Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.
 - 1. Non-Fire-Rated Standard Steel Doors:
 - a. Jambs and Head: 1/8 inch plus or minus 1/16 inch.
 - b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
 - c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch.
 - d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.
 - 2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
 - 3. Smoke-Control Doors: Install doors according to NFPA 105.
- D. Glazing: Comply with installation requirements in Division 8 Section "Glazing" and with standard steel door and frame manufacturer's written instructions.
 - 1. Secure stops with countersunk flat- or oval-head tamper-resistant machine screws spaced uniformly not more than 9 inches o.c., and not more than 2 inches o.c. from each corner.

3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including standard steel doors or frames that are warped, bowed, or otherwise unacceptable.
- B. Clean grout and other bonding material off standard steel doors and frames immediately after installation.
- C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying primer.
- D. Galvannealed Surfaces: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION 081113

Kinane, Collette

From: Sebastian Duca <sduca@daviskane.com>
Sent: Tuesday, May 26, 2020 12:38 PM
To: Kinane, Collette
Cc: Tully, Tania; Morton, Erin
Subject: RE: Wake County Home COA-0064-2020

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Collette, thanks for your reply.

After talking with the Owner, we decided to move ahead with the 1st option and have the remainder of the application approved, without the window sashes replacement work. We'll revisit the sashes replacement scope and see what is the best way to proceed. Can you please mail the Certificate of Appropriateness to my office address as usual? Or email a digital copy (pdf) if acceptable.

Sebastian Duca AIA | LEED AP
Architect
Davis Kane Architects PA

From: Kinane, Collette <Collette.Kinane@raleighnc.gov>
Sent: Thursday, May 21, 2020 3:18 PM
To: Sebastian Duca <sduca@daviskane.com>
Cc: Tully, Tania <Tania.Tully@raleighnc.gov>; Morton, Erin <Erin.Morton@raleighnc.gov>
Subject: RE: Wake County Home COA-0064-2020

Hi, Sebastian –

Thanks for the additional materials. With the new information, we can approve all parts of your application except for the window sash replacement. As staff, our ability to review and approve work items is limited. As I mentioned previously, we can only approve replacing windows or exterior components of windows with clear evidence that they are damaged or deteriorated beyond repair. This evidence would include detailed photographs of each sash to be replaced and an assessment by a preservation professional that the windows cannot be repaired. Alternatively, you could also provide evidence that the sashes to be installed are identical (matching in dimension, design, material, quality of material, and other visual qualities) to those being removed. Without the submission of either form of evidence, the window sash replacement must be reviewed by the Committee as a major work COA.

There are several options for moving forward:

- I can approve the remainder of the application (without the window sash replacement portion). The window sash replacement can be submitted later either as a minor work with additional evidence as suggested above or as a major work.
- Or, I can wait for additional window evidence and (hopefully) approve the whole application upon receipt/review.

Please let us know how you'd like to proceed.

Thanks,
Collette

Collette R. Kinane
Preservation Planner II

■ **Raleigh Urban Design Center**
One Exchange Plaza, Suite 300 | Raleigh, NC 27601
919-996-2649 | raleighnc.gov

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From: Sebastian Duca <sduca@daviskane.com>
Sent: Monday, May 18, 2020 1:16 PM
To: Kinane, Collette <Collette.Kinane@raleighnc.gov>
Cc: Tully, Tania <Tania.Tully@raleighnc.gov>; Morton, Erin <Erin.Morton@raleighnc.gov>
Subject: RE: Wake County Home COA-00

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Hi Collette,
I hope you're doing well. Just wondering if you have any update on our application for the Certificate of Appropriateness? As requested, we submitted the additional clarifications both by email and by uploading the attached pdf on COR Permit and Development Portal as well. The project is supposed to start pretty soon, the pre-construction meeting being scheduled this Wednesday and the actual construction work commencement following shortly, in a few days. Anyways, if any other clarifications are required, please let me know and I'll address the comments promptly.
Thank you, Sebastian

Sebastian Duca AIA | LEED AP
Architect

Davis Kane Architects PA
503 Oberlin Road, Suite 300 | Raleigh, NC 27605
O. 919-833-3737 | D. 919-719-2813

Facebook | LinkedIn | Instagram | www.daviskane.com

From: Sebastian Duca
Sent: Tuesday, May 05, 2020 4:33 PM
To: 'Kinane, Collette' <Collette.Kinane@raleighnc.gov>
Cc: Tully, Tania <Tania.Tully@raleighnc.gov>; Morton, Erin <Erin.Morton@raleighnc.gov>
Subject: RE: Wake County Home COA-00

Hi Collette,
Thank you for your review and input, our response is included in attached pdf. Hopefully the additional provided information will address your comments. Please let us know if more clarifications or photos are needed. Thanks again,
Sebastian

Sebastian Duca AIA | LEED AP
Architect

Davis Kane Architects PA
503 Oberlin Road, Suite 300 | Raleigh, NC 27605
O. 919-833-3737 | D. 919-719-2813

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From: Kinane, Collette <Collette.Kinane@raleighnc.gov>
Sent: Friday, May 01, 2020 11:02 AM
To: Sebastian Duca <sduca@daviskane.com>
Cc: Tully, Tania <Tania.Tully@raleighnc.gov>; Morton, Erin <Erin.Morton@raleighnc.gov>
Subject: RE: Wake County Home COA-00

Hi, Sebastian –

We've completed an initial review of your minor work application. To keep things organized, I'm separating our comments and questions by project type as listed in the application below.

Fire Escape Removal:

No questions. This can be approved.

Metal Window Replacement and Fire Exit Door conversion:

Please provide manufacturer's specifications for the windows. Pending receipt of that information, this can be approved.

Kitchen Door & Metal Stair Removal:

Could you provide a closer photograph of the door? As above, pending receipt of window specifications and the closer photo of the door, this can be approved.

Exterior Door Replacement:

Please provide manufacturer's specifications for the new doors. Pending receipt of that information, this can be approved.

Security Cameras:

No questions. This can be approved.

Tuckpointing:

Could you provide a before and after photo of the previous work on the east or west elevation that you plan to match? Pending receipt of that information, this could be approved. Please keep in mind *Design Guideline 2.2.5*: "Repoint masonry mortar joints if the mortar is cracked, crumbling, or missing or if damp walls or damaged plaster indicate moisture penetration. Before repointing, carefully remove deteriorated mortar using hand tools. Replace the mortar with new mortar that duplicates the original in strength, color, texture, and composition. Match the original mortar joints in width and profile."

Window Sash Replacement:

This is a larger item that requires more information before we can determine if it could be approved by staff. I've read through our file on the property and some reference is given to window work that was completed or requested in 1997. Do you have any knowledge or files on the extent of that work? In order for window replacement to be a staff approvable item, we need clear evidence that the windows are damaged or deteriorated beyond repair. This typically includes detailed photographs of each window to be replaced and an assessment by a preservation professional that the windows cannot be repaired. Alternatively, any evidence you could provide that the windows are not historic would be very helpful.

Thanks for your patience. Please let us know if you have any questions.

Collette

Collette R. Kinane
Preservation Planner II

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One Exchange Plaza, Suite 300 | Raleigh, NC 27601
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From: Sebastian Duca <sduca@daviskane.com>
Sent: Wednesday, April 29, 2020 9:27 AM
To: Kinane, Collette <Collette.Kinane@raleighnc.gov>
Cc: Tully, Tania <Tania.Tully@raleighnc.gov>; Morton, Erin <Erin.Morton@raleighnc.gov>
Subject: RE: Wake County Home

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Good morning Collette,
As I mentioned in my previous emails, we submitted a new application for Certificate of Appropriateness for the remaining renovation items that haven't been approved yet. The application has been submitted online on COR Portal on 4/22/2020, COA number COA-0064-2020. The project has been formally approved by the Board of Commissioners as required for Wake County projects and we're planning to start construction soon, in the next 2-3 weeks.
Thank you and please let me know if any other additional info is required.

Sebastian Duca AIA | LEED AP
Architect

Davis Kane Architects PA
503 Oberlin Road, Suite 300 | Raleigh, NC 27605
O. 919-833-3737 | D. 919-719-2813

Facebook | LinkedIn | Instagram | www.daviskane.com

From: Sebastian Duca
Sent: Tuesday, April 14, 2020 11:57 AM
To: 'Kinane, Collette' <Collette.Kinane@raleighnc.gov>
Cc: Tully, Tania <Tania.Tully@raleighnc.gov>; Morton, Erin <Erin.Morton@raleighnc.gov>
Subject: RE: Wake County Home

Hi Collette,
I hope you're doing well and staying safe. I put together a new application including additional renovation items that haven't been incorporated in the original submittal. Before I save the application on COR Portal can you please review the attached information and let me know if more clarifications are required?
All new renovation items are either restoring the bldg. features to the original design as specified in RHDC guidelines or enhancing the exterior appearance by replacing the deteriorated components. Therefore, in my opinion, all these items can be considered 'minor' work. If that's not the case I'll revise the application as you advise.
Thanks and please let me know if you have any questions. Sebastian

Sebastian Duca AIA | LEED AP
Architect

Davis Kane Architects PA
503 Oberlin Road, Suite 300 | Raleigh, NC 27605

From: Kinane, Collette <Collette.Kinane@raleighnc.gov>

Sent: Wednesday, March 25, 2020 12:09 PM

To: Sebastian Duca <sduca@daviskane.com>

Cc: Tully, Tania <Tania.Tully@raleighnc.gov>; Morton, Erin <Erin.Morton@raleighnc.gov>

Subject: Wake County Home

Hi, Sebastian –

I hope you're healthy and not too disrupted in these strange times! We received a voicemail this morning from someone who mentioned seeing an RFP for window replacement and exterior security camera installation for the Wake County Home property and was curious about the COAs for those projects. I recall an application a few years ago for the window to mechanical louver conversion on the rear, but other than that I don't remember discussing replacing the windows in these recent applications. Please let me know if the caller misunderstood the request, so that we can respond appropriately. However, if your client is now pursuing window replacement, it will likely require a new major work COA application. Similarly, installing exterior security cameras and entry hardware would be a minor work application.

Please let me know if you have any questions. We're all currently working remotely, so email is the fastest method of communication.

Stay healthy!

Thanks!

Collette

Collette R. Kinane

Preservation Planner II

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