Property Committee

Max Schneider, Chairman
James Carius Community Room
101 S. Capitol Street
Pekin, Illinois 61554
Tuesday, November 10, 2026 – 3:30 p.m.

I. Roll Call

II. Approve the minutes of the October 20, 2026 meeting

III. Public Comment

IV. New Business

P-26-24 A. Recommend to approve termination of the Lease Agreement with Proctor Health Systems for 1800 Broadway, Pekin, Illinois.

P-26-25 B. Recommend to approve the adoption of Ordinance to receive Justice Center Annex Lots from the City of Pekin

P-26-26 C. Recommend to approve windows and doors replacement project at the Courthouse

D. Discussion: Projects Update

V. Reports and Communications

A. Justice Center Annex Project Update Including Contingency Spent to Date

B. Capital Improvement Plan Costs for Projects with PJ Hoerr as Project Manager

VI. Unfinished Business

VII. Recess

Members: Chairman Max Schneider, Vice-Chair Eric Stahl, Dave Mingus, Nancy Proehl, Mike Harris, Eric Schmidgall, Jon Hopkins, Kim Joesting

Minutes pending committee approval

Property Committee Meeting

James Carius Community Room
Tuesday, October 20, 2026 – 3:30 p.m.

Committee Members Present:	Chairman Max Schneider, Vice Chairman Eric Stahl, Nancy Proehl, Jon Hopkins, Eric Schmidgall
Committee Members Absent:	Mike Harris, Dave Mingus, Kim Joesting
Others Attending:	Mindy Darcy, County Administrator

MOTION **MOTION BY MEMBER SCHMIDGALL, SECOND BY MEMBER STAHL** to approve the minutes of the September 22, 2026 meeting

On voice vote, **MOTION CARRIED UNANIMOUSLY**

DISCUSSION: **Current Project Update**

Facilities Maintenance Director Mike Schone provided an overview of current projects.

DISCUSSION: **Justice Center Annex Building Project Update Including Contingency Spent to Date**

Administrator Darcy stated that the monthly report will be provided to the members shortly as she was off for a couple days last week.

DISCUSSION: **Capital Improvement Plan Costs for Projects with PJ Hoerr as Project Manager**

Administrator Darcy stated that the monthly report will be provided to the members shortly as she was off for a couple days last week.

RECESS Chairman Schneider recessed the meeting at 3:34 p.m.

(transcribed by S. Gullette)

DRAFT

COMMITTEE REPORT

Mr. Chairman and Members of the Tazewell County Board:

Your Property Committee has considered the following RESOLUTION and recommends that it be adopted by the Board:

R E S O L U T I O N

WHEREAS, the County's Property Committee recommends to the County Board to approve the termination of the lease agreement with Proctor Health Services ("Carle") for medical office space at 1800 Broadway, Pekin, Illinois; and

WHEREAS, the parties entered into a five-year medical office space lease on December 18, 2023 with a lease commencement date of January 1, 2024 per resolution P-23-15. An amendment to the lease, approved via resolution P-24-01, which adjusted the lease commencement date to January 1, 2025 was signed on February 2, 2024; and

WHEREAS, pursuant to prior discussions between the parties, the parties hereby agree and consent to terminate the lease early, with termination effective as of January 1, 2027; and

WHEREAS, Carle has never occupied the leased space and agrees to vacate the premises by end of day, December 31, 2026, removing any effects and personal property from the premises; and

WHEREAS, Carle agrees to make a final payment to Tazewell County of $61,200 as consideration for the early termination of the lease as negotiated between the parties.

THEREFORE BE IT RESOLVED that the County Board approve the termination of the lease agreement with Proctor Health Services ("Carle").

BE IT FURTHER RESOLVED that the County Clerk notifies the County Board Office, Finance Director, Facilities Director and Auditor of this action.

PASSED THIS 18th DAY OF NOVEMBER 2026

ATTEST:

_____ _____

County Clerk County Board Chairman

Docusign Envelope ID: D6448935-172B-8D88-8098-87AFEEBE1D11

carle.org | 611 W. Park Street, Urbana, IL 61801 | (217) 383-3311

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

November 5, 2026

Tazewell County
11 S. 4th St.
Pekin, IL 61554
Attn: Mindy Darcy

Re: Termination by Mutual Agreement
Lease Agreement Between
Proctor Health Systems and Tazewell County

To whom it may concern:

This letter of agreement serves to confirm the mutual agreement of the Parties to terminate the Lease Agreement between Proctor Health Systems ("**Carle**") and Tazewell County ("**Tazewell**") which is dated January 1, 2024 as amended from time to time, for those certain premises located at 1800 Broadway St., Pekin IL (the "**Lease**").

Pursuant to the prior discussions between the Parties, the Parties hereby agree and consent to terminate the Lease early, with termination effective as of January 1, 2027. Please provide the signature of an authorized representative below, and return a fully executed copy to Carle, signifying Tazewell's agreement and consent to terminate the Lease effective January 1, 2027. By signing below, Carle agrees to vacate the premises by the end of day on December 31, 2026, leaving the premises in broom clean condition, and removing all effects and personal property belonging to Carle at the time Carle vacates the premises. Carle agrees to make a final payment to Tazewell of $61,200, on or before the end of January 30, 2027, as negotiated between the Parties, as consideration for Tazewell's agreement to terminate the Lease, and Tazewell hereby accepts such payment of $61,200 and waives any other amounts which would become due and payable after the termination date.

Should you have any questions regarding the content of this letter, please feel free to contact me directly at Nicholas.Crompton@carle.com.

Please sign and return a fully executed copy of this letter to us at your earliest convenience.

Respectfully,

Proctor Health Systems	County of Tazewell, State of Illinois
By: Nicholas Crompton	By: _____
Title: VP of Facilities and Constr.	Title: _____
Date: 11/05/2026 | 3:57 PM CST	Date: _____

COMMITTEE REPORT P-26-25

Mr. Chairman and Members of the Tazewell County Board:

Your Property Committees have considered the following RESOLUTION and recommend that it be adopted by the Board:

R E S O L U T I O N

WHEREAS, the Property committee recommends approval to execute the require document described in the Intergovernmental Agreement approved April 24th, 2024, attached as Exhibit A; and

WHEREAS, the property currently owned by the City of Pekin in the 300 block of Court Street in the City of Pekin (the "Vacant Lots"), more particularly described as follows:

Lots 7, 6, 5, and the East one and two-twelfths feet of Lot 4 in the Original Town, now City of Pekin, Tazewell County, Illinois.

WHEREAS, the County has fulfilled their obligation to improve and make available for public use the Tazewell Lot from 4th Street to 5th Street; and

WHEREAS, the City of Pekin desires to convey the Vacant Lots to the County for public use and development as administrative and judicial offices for the County and its operations through an intergovernmental agreement; and

THEREFORE BE IT RESOLVED that the County Board approve this recommendation and authorizes the Board Chairman to sign all necessary documents associated with the transfer of the aforementioned described property.

BE IT FURTHER RESOLVED that the County Clerk notifies the County Board Office, the Finance Office, and the Auditor of this action.

PASSED THIS 18th DAY OF NOVEMBER, 2026.

ATTEST:

_____ _____

Tazewell County Clerk Tazewell County Board Chairman

AN ORDINANCE AMENDING THE TAZEWELL COUNTY CODE
TABLE OF SPECIAL ORDINANCES, TABLE I: AGREEMENTS

WHEREAS, the Illinois Intergovernmental Cooperation Act, 5 ILCS 220/1 et seq., authorizes units of local government to cooperate and enter into agreements for the joint or cooperative performance of governmental functions; and

WHEREAS, Tazewell County, Illinois (hereinafter referred to as the "County"), and the City of Pekin, Illinois (hereinafter referred to as the "City"), entered into an Intergovernmental Agreement dated April 24, 2024, providing for the transfer and acceptance of certain real property; and

WHEREAS, the property subject to the Intergovernmental Agreement is legally described in Exhibit A, attached hereto and incorporated herein by reference (hereinafter referred to as the "Property"); and

WHEREAS, pursuant to the terms of the approved Intergovernmental Agreement, and having fulfilled the applicable requirements thereof, the County is to accept ownership of the Property from the City; and

WHEREAS, the County Board finds that acceptance of the Property is in the best interests of Tazewell County and its residents and is consistent with the public purposes and governmental responsibilities of the County; and

WHEREAS, the County Board desires to formally authorize the acceptance of the Property and the execution of all documents necessary to complete the conveyance and transfer in accordance with the terms of the existing Intergovernmental Agreement.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNTY BOARD OF TAZEWELL COUNTY, ILLINOIS, that the County Board Chairman is hereby authorized to execute all documents necessary to properly and lawfully accept the conveyance and transfer of the Property from the City of Pekin, Illinois.

BE IT FURTHER ORDAINED, that the County Clerk shall provide notice of this Ordinance to the County Board Office and the City of Pekin.

BE IT FURTHER ORDAINED, that this Ordinance shall be entered into the Tazewell County Code, Table of Special Ordinances, Table I: Agreements.

PRESENTED AND APPROVED by the County Board of Tazewell County, Illinois, this _____ day of _____, 2026.

_____
Chairman, Tazewell County Board

ATTEST:

_____
Tazewell County Clerk

COMMITTEE REPORT

P-24-06

Mr. Chairman and Members of the Tazewell County Board:

Your Property Committees have considered the following RESOLUTION and recommends that it be adopted by the Board:

RESOLUTION

WHEREAS, the Property committee recommends approval of an Intergovernmental Agreement with the City of Pekin for vacant lots; and

WHEREAS, the City of Pekin currently owns property located in the 300 block of Court Street in the City of Pekin (the "Vacant Lots"), more particularly described as follows:

> Lots 7, 6, 5, and the East one and two-twelfths feet of Lot 4 in the Original Town, now City of Pekin, Tazewell County, Illinois.
>
> PINs: 04-04-34-438-010; 04-04-34-438-011; 04-04-34-438-012; 04-04-34-438-013; and 04-04-34-438-014; and

WHEREAS, the County owns a parking lot located to the east of the building at 414 Court Street (PIN 04-04-34-440-007) and north of the alley (the "Tazewell Lot"); and

WHEREAS, the County has made the Tazewell Lot available for public parking and will install signage indicating that it is available for public use, and in 2023 the County repaved the City of Pekin's alley located south of the Tazewell Lot from 4th Street to 5th Street at a cost of $25,843; and

WHEREAS, in 2023 Tazewell County submitted a proposal for the Vacant Lots with a willingness to pay up to $25,000; and

WHEREAS, the City of Pekin desires to convey the Vacant Lots to the County for public use and development as administrative and judicial offices for the County and its operations through an intergovernmental agreement; and

WHEREAS, key provisions to the intergovernmental agreement include the following:

> Tazewell County shall grant and allow the City easements for wastewater, storm water, and combined sewer system on the 300 block of Court Street and the vacated portion of Elizabeth Street.
>
> Tazewell County shall allow a ten foot wide access easement across the westerly 150 feet of the alley in the 300 block of Court Street and take responsibility for paving and maintaining the easement.

Tazewell County agrees to provide the City with a plat of easement for any relocated sewer lines prior to commencing construction on the block.

The Vacant Lots are being provided in AS-IS condition, with no warranties expressed or implied.

Recognizing the Tazewell County's repaving of the alley and One Dollar ($1.00) as the consideration.

THEREFORE BE IT RESOLVED that the County Board approve this recommendation and authorizes the Board Chairman to sign the intergovernmental agreement.

BE IT FURTHER RESOLVED that the County Clerk notifies the County Board Office, the Finance Office, the Treasurer, and the Auditor of this action.

PASSED THIS 24th DAY OF APRIL, 2024.

ATTEST:

Tazewell County Clerk

Tazewell County Board Chairman

Intergovernmental Agreement

This Agreement made and entered into by and between the City of Pekin, an Illinois municipal corporation, hereinafter referred to as the "**City**," and the County of Tazewell, Illinois, hereinafter referred to as the "**County**," and who are collectively referred to herein as the "**Parties**."

WHEREAS, the City, as a home-rule unit of local government, and the County, as a political subdivision organized and existing under the laws of the State of Illinois, are authorized and empowered by Article VII, Section 10 of the Constitution of the State of Illinois and the Intergovernmental Cooperation Act, 5 ILCS 220/1 et seq. to enter into intergovernmental agreements for any purpose not prohibited by law; and

WHEREAS, the City and the County are authorized, pursuant to the Local Government Property Transfer Act (50 ILCS 605/0.01 et seq.), to transfer and receive, respectively, real estate for public purposes as may pertain to each public body; and

WHEREAS, the City currently owns property located in the 300 block of Court Street in the City of Pekin, Illinois, more particularly described as follows:

> Lots 7, 6, 5, and the East one and two-twelfths feet of Lot 4 in the Original Town, now City of Pekin, Tazewell County, Illinois.
>
> PINs: 04-04-34-438-010; 04-04-34-438-011; 04-04-34-438-012; 04-04-34-438-013; and 04-04-34-438-014
>
> (the "Property"); and

WHEREAS, the County owns a parking lot (the "Tazewell Lot") located to the east of the building at 414 Court Street (PIN 04-04-34-440-007) and north of the alley; and

WHEREAS, the County has made the Tazewell Lot available for public parking and will install signage indicating that it is available for public use, and in 2023 the County repaved the City's alley located south of the Tazewell Lot from 4th Street to 5th Street at a cost of approximately $25,000; and

WHEREAS, the City desires to convey the Property to the County for public use and development as administrative and judicial offices for the County and its operations; and

WHEREAS, on April 24, 2024, the County passed an ordinance accepting the transfer of the Property to the County pursuant to the terms described herein and the Local Government Property Transfer Act; and

WHEREAS, on April 8, 2024, the City passed an ordinance authorizing the conveyance of the Property by the City to the County upon such terms and conditions as may be agreed by the Mayor and the chair of the County Board; and

WHEREAS, the Parties have reached a mutual understanding of the terms, covenants, conditions, and restrictions associated with the transfer of the real estate from the City to the County.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the City and the County do hereby agree as follows:

Section 1. Recitals. The foregoing Recitals are full, true and correct and the Parties incorporate them into this Agreement.

Section 2. Transfer. The City will take all necessary and appropriate actions under the Local Government Property Transfer Act and the Pekin City Code to transfer to the County all of the City's right, title, and interest in and to the Property by delivering to the County a fully executed, recordable, quitclaim deed, subject to the Easement described in **Section 5** of this Agreement. In exchange for delivery of the aforementioned deed, the County shall, in addition to the cost of repaving the alley through the Tazewell Lot already incurred as set forth above, pay the City One Dollar ($1.00) in consideration of the purchase of the Property. The City shall pay all costs associated with the transfer, including, but not limited to, the cost to record the deed and any transfer tax that may be due. The City shall satisfy any County or Municipal requirements to be met related to the Plat Act.

Section 3. Real Estate Taxes. The City shall pay any real property taxes due on the Property for tax year 2023, payable in 2024, when they come due. The County shall be solely responsible for any real estate taxes accruing as to the Property for tax year 2024, payable in 2025.

Section 4. Title to Property. The County desires to accept title to the Property without title insurance and hereby releases the City from any obligation to provide a title commitment for an owner's title insurance policy related to the Property and further releases the City for any defect in title.

Section 5. Easements.

A. The City shall retain an easement across, over, through, and under the Property for the purpose of operating, maintaining, modifying, or repairing the City's wastewater, storm water, and combined sewer system.

B. The County hereby grants the City an easement across, over, through, and under that part of Elizabeth Street between Capitol Street and Third Street previously vacated by the City by Ordinance No. 4265-23/24 passed by the City Council on February 26, 2024, and recorded in the office of the Tazewell County Clerk on March 13, 2024, as Document No. 202400002798 for the purpose of operating, maintaining, modifying, or repairing the City's wastewater, storm water, and combined sewer system.

C. Upon vacation of the alley in the 300 block of Court Street between Capitol Street and Third Street, the County shall grant a 10 foot wide easement across the westerly 150 feet of said alley for purposes of allowing ingress and egress to the improvements

located at the Northwest corner of said 300 block. The County shall be responsible for paving and maintaining the easement described in this subsection.

D. Prior to commencing construction of any improvements on the Property or in the 300 block of Court Street, the County shall submit a plat of easement for approval by the City depicting the location of all relocated sewer lines and related easements.

Section 6. AS-IS Condition. The County acknowledges that it has inspected the Property and that the County is acquainted with the condition thereof and accepts the same in AS-IS condition with NO WARRANTIES EXPRESSED OR IMPLIED.

Section 7. City Representations, Warranties and Covenants. The City represents and warrants to the County that, as of the date of this Agreement:

A. To the best of its knowledge, the City owns fee simple title to the Property;

B. The persons executing this Agreement on behalf of the City, and executing and delivering any other agreement or other item contemplated by this Agreement or otherwise required to fulfill the City's obligations hereunder, have full authority to bind the City to such obligations and to so act on behalf of the City;

C. To the best of its knowledge, there are no persons in possession of, or having a right to possession of, any part of the Property other than the City;

D. The City has the authority and the legal right to make, deliver, and perform this Agreement and has taken all necessary actions and obtained all required consents and approvals to authorize the execution, delivery, and the performance of this Agreement;

E. The City has not received any notices from any governmental authority with respect to the Property that have not been corrected.

Section 8. County Representations, Warranties and Covenants. The County represents and warrants to the City that, as of the date of this Agreement:

A. The persons executing this Agreement on behalf of the County, and executing and delivering any other agreement or other item contemplated by this Agreement or otherwise required to fulfill the County's obligations hereunder, have full authority to bind the County to such obligations and to so act on behalf of the County; and

B. The County has the authority and the legal right to make, deliver, and perform this Agreement and has taken all necessary actions and obtained all required consents and approvals to authorize the execution, delivery, and performance of this Agreement.

Section 9. Binding Effect. This Agreement shall inure to the benefit of and shall bind the City, and its corporate authorities, officers, employees, agents, representatives, successors and

assigns, and shall also bind the County, its Board of Trustees and its members, as well as its employees, agents, representatives, officers, successors and assigns.

Section 10. Counterparts. For the convenience of the Parties, this Agreement may be executed in counterparts, and be deemed fully adopted by both the City, and the County when each body's governing board has signed one (1) counterpart of this Agreement. All counterparts shall be deemed originals for all purposes.

Section 11. Authority to Execute. The undersigned represent that they have the authority of their respective governing bodies to execute this Agreement.

Signatures on the following page.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the _____ day of _____, 2024.

City of Pekin, an Illinois municipal corporation

By: _____
Mayor

ATTEST:

_____
City Clerk

County of Tazewell, an Illinois body politic

By: _____
Chairman, County Board

ATTEST:

_____
County Clerk

COMMITTEE REPORT

Mr. Chairman and Members of the Tazewell County Board:

Your Property Committee has considered the following RESOLUTION and recommends that it be adopted by the Board:

R E S O L U T I O N

WHEREAS, the County's Property Committee recommends to the County Board to approve the windows and doors replacement project at the Courthouse; and

WHEREAS, P.J. Hoerr received bids from BVB Glass, Kelly Glass, and East Moline Glass. East Moline Glass as subcontractor was deemed the best overall option and lowest bidder resulting in a total project cost of $1,587,772.01; and

WHEREAS, P.J. Hoerr will oversee this project through our existing relationship with them as construction manager over renovations and property improvements to Tazewell County's existing buildings and properties; and

WHEREAS, the project is scheduled for completion in FY27 and is funded in the FY27 Capital Improvement Plan Fund with a budget of $1,400,000; and

WHEREAS, the County Administrator recommends approving the bid and is authorized to proceed with the project.

THEREFORE BE IT RESOLVED that the County Board approve the windows and doors replacement project at the Courthouse.

BE IT FURTHER RESOLVED that the County Clerk notifies the County Board Office, Finance Office, Facilities Director and Auditor of this action.

PASSED THIS 18th DAY OF NOVEMBER, 2026.

ATTEST:

_____ _____

Tazewell County Clerk Tazewell County Board Chairman

P.J. HOERR
Since 1914
Peoria Office: 107 N. Commerce Place, Peoria, IL 61604 • Phone: 309.688.9567 • Fax: 309.688.9556
Bloomington/Normal Office: 117 Merle Lane, Normal, IL 61761 • Phone: 309.888.9567 • Fax: 309.888.9556

November 5, 2026

Mindy Darcy
County Administrator
Tazewell County

Re: Proposal
Tazewell County Courthouse Windows and Doors Replacement

Dear Mindy,

Below is the cost for the above referenced project.

Scope

- See attached scope sheet
- Window and door replacement for Tazewell County Courthouse
- Architectural services - **Allowance $32,000**
- Abatement and removal of windows and doors - **Allowance $190,000**
- New window and door blocking, liquid flashing, temporary enclosures on openings, trim removal/reinstall, ceiling grid rework - **Allowance $312,728**
- Mechanical, plumbing, electrical and access control work at basement windows and entry doors - **Allowance $41,972**
- Kawneer aluminum storefront doors
- Manko 725i series single hung window units
- We recommend using East Moline Glass with a total bid of **$803,830**; as they are the low responsible bid.
- Additional bids: BVB Glass $839,000, Kelly Glass $1,045,000; Mclean County Glass, Dekalb Glazing Inc, Bethalto Glass Inc, and Mid-American Glazing Systems were invited but declined to bid.
- Any unused funds for allowances and contingency will be credited back to the County

Tazewell County Courthouse Windows and Doors Replacement											**$**	**1,587,772.01**
Architect Allowance	**Abatement/Demo Allowance**	**Blocking/Liquid Flashing/Boarding Allowance**	**MEP Allowance**	**Dumpster/Temp Toilets**	**Glazing**	**PM/Super/Safety/Quality**	**GL/Procore**		**Fee**	**Contingency**	**TOTAL**
$ 32,000.00	$ 190,000.00	$ 312,728.00	$ 41,972.00	$ 9,500.00	$ 803,830.00	$ 78,156.00	$ 5,646.32	0.39%	$ 40,530.39 2.75%	$ 73,409.30	$ 1,587,772.01

Notable Assumptions/Exclusions:

- This pricing is valid for 30 days.
- The owner will allow access at the facility during normal working hours Monday - Friday.
- This proposal does not include Performance and Payment Bonding.
- This proposal does not include painting or staining
- This proposal does not include sales tax.
- Builders Risk Provided by Owner.
- This proposal does not include identification, abatement or remediation of any hazardous materials except for hazardous material abatement in caulking
- Allowances will be done on a Time & Material basis and all savings will be credited to the Owner at completion.
- All unused contingency will be credited back to the Owner at completion.

If you have any questions about the above information do not hesitate to contact our office.

Sincerely,

Charlie Waibel
P. J. Hoerr, Inc.

Windows and Doors Replacement
Tazewell County Courthouse

Bid Proposal
November 5, 2026

Dear Ms. Mindy Darcy,

Please find below our proposal for the Tazewell County Courthouse Windows and Doors Replacement project. Please see below for proposal pricing, scope of work, clarifications and exclusions.

Base Proposal Amount $1,587,772.01

Proposal Breakdown by Scope of Work		
	General Conditions	**$87,656**
	Architect Allowance	**$32,000**
	Abatement/Demolition Allowance	**$190,000**
	Blocking/Liquid Flashing/Boarding Allowance	**$312,728**
	MEP Allowance	**$41,972**
	Glazing	**$803,830**
	Contingency	**$73,409.30**
	Insurance, Procore, Overhead & Profit	**$46,176.71**

SCOPE OF WORK

1. Division 1 - General Conditions
   - Supervision, Project Management, Safety, and Quality Control Specialist for project.
   - Dumpster and Temporary Toilets.
   - General construction cleaning
2. Division 02 – Abatement/Demolition
   - Removal and disposal of windows for the basement, first floor, second floor, and third floor.
   - Removal and disposal of hazardous material in caulking
3. Division 04 - Masonry
   - Liquid flashing on window wood blocking.
   - Patch holes at basement windows from steel bars.

4. Division 06 – Carpentry
   - Remove metal bars from basement windows.
   - Install blocking at window and door openings
   - Temporary watertight enclosures at openings
   - Protection of existing building components
   - Remove and reinstall ceiling grid and tiles
   - Trim stop removal and reinstall at all window and door openings
5. Division 09 – Glazing
   - Kawneer 2" x 4 ½" 451T exterior thermally broken aluminum storefront for 1" glazing
   - Kawneer 1 ¾" x 4 ½" 450 interior aluminum storefront for ¼" glazing
   - Kawneer door hardware includes continuous hinge, panic hardware, weatherstripping, threshold, 10" door bottom, Norton 1601 surface mounted closers, & CO-09 pulls
   - Power door operator removed & reinstalled
   - Includes Manko 725i series single hung window units with receptor
   - 1" exterior insulated glass with clear GUARDIAN SN68 LOW-e, standard ¼" glazing
6. Division 22 - Plumbing
   - Remove and replace water hydrants at basement windows
   - Remove radon piping at basement window
   - Rework split system and install new duct work piping.
7. Division 26 – Electrical
   - Demolition of all power and rework all conduits and devices at basement windows
8. Division 28 – Electronic Safety and Security
   - Remove and reinstall access control device on exterior perimeter doors.
   - Remove and reinstall cables from basement windows.

CLARIFICATIONS & EXCLUSIONS

1. Pricing is good for 30 days.
2. Sales tax has been excluded.
3. We have assumed that all work shall be standard hours 7:00 - 3:30, Monday – Friday.
4. Assumes Owner will provide adequate space for construction material storage, equipment access, and area at window openings
5. Allowances will be done on a Time & Material basis and all saving will be credited to the Owner at completion.
6. All unused contingency will be credited back to the Owner at completion
7. We specifically exclude the following items:
   - Payment and Performance bond
   - Property or Builders Risk insurance
   - Painting or staining

Please contact our office if you have any questions regarding this proposal. We appreciate the opportunity to provide this proposal to Tazewell County.

Charlie Waibel
Project Manager

P.J. HOERR

BID DAY GLAZING

Project:	Tazewell County Courthouse	East Moline	Kelly Glass	BVB
Spec:				
SEC.	DESCRIPTION			
	BASE BID	803,830	1,045,000	839,000
	Kawneer Store Fronts	Yes	Yes	Yes
	Manko 725i series single hung window units with receptor	Yes	Yes	Yes
	1" exterior insulated glass with clear GUARDIAN SN68 LOW-e, standard ¼" glazing	Yes	Yes	Yes
	18ga Pre-finished aluminum sill, jamb and head flashings	Yes	Yes	35,000
	Power door operators removed and reinstalled	Yes	Yes	Yes
	Tax Exempt	Yes	Yes	Yes
	Hoists/Lifts	Yes	Yes	Yes
	TOTAL ADJUSTMENTS	-	-	35,000
	ADJUSTED TOTAL	803,830	1,045,000	874,000
	PLUG			
	LOW SUB			

ALT 1	Glazing #9 - 1/4" MC27 AIR 1/4" Lami w/0.030 AIR 0.020(#2) CL ZF-D N	9,330	8,800	18,000
ALT 2	Glazing #11 - 1/4" Bronze SB60 AIR 1/4" Lami w/0.030 AIR 0.035(#2) BZ ZF-D N	33,300	18,400	21,000
ALT 3	Glazing #12 - 1/4" Gray SB60 ARG 1/4" Lami w/0.030 ARG90 0.035(#2) GY ZF-D N 3	33,300	18,400	35,000
	ALT TOTAL	75,930	45,600	74,000
	Percentage from low bidder		23%	8%

To: **PJ Hoerr, Inc.**
107 Commerce Place
Peoria IL 61604
Phone: (309)688-9567

Project: Tazewell County Courthouse Window Replacement Project
342 Court Street
Pekin, Illinois 61554

Construction Manager: P.J. Hoerr

Architect of Record: EA Architecture & Design, Inc.

Bidder Name EAST MOLINE OPERATING Co. dba EAST MOLINE GLASS Co.

Address 1033 7TH ST #100 EAST MOLINE, IL 61244

Phone # 309-755-1422

Contact DAVE BANCROFT

Email DAVID.BANCROFT@EASTMOLINEGLASS.COM

This bid is based upon the bidding documents for this Project which consists of:

1. Specifications and Drawings issued dated October 13, 2026 via SmartBid.

2. Addenda as Follows:

Addendum No. ( ) 1 dated 10-28-2026;
Addendum No. ( ) _____ dated _____;
Addendum No. ( ) _____ dated _____;

Work Package (#/Description): **WINDOW REPLACEMENT PROJECT**

Having examined the site and having familiarized itself with the conditions affecting the cost of the work and with the bidding documents, Bidder hereby proposes to perform everything required and to furnish all labor, materials, necessary tools, expendable equipment and transportation services necessary to complete in a workmanlike manner the work package stated above in accordance with the bidding documents for the following sum:

Base Bid: EIGHT HUNDRED THREE THOUSAND, EIGHT-HUNDRED THIRTY 00/100 Dollars ($803,830)

TAXES: This project is tax exempt.

ALTERNATES

Alternate Bids: "Alternate Bid" means a fixed amount for all labor, material, overhead, profit, and all other costs of whatever nature and character for the item described. Alternate Bids may be used to determine the lowest responsible bidder and will not be considered in any particular order. Voluntary alternate bids may be provided at the discretion of the bidding contractor. Attach additional information if necessary to describe the alternate work.

1. Alternate Bid No. 1: **GL-4** as a substitute for GL-3
   #9 - 1/4" MC27 AIR 1/4" Lami w/0.030 AIR 0.020(#2) CL ZF-D N

   Add / ~~Deduct~~: NINE THOUSAND, THREE HUNDRED THIRTY Dollars ($ 9,330)

2. Alternate Bid No. 2: **GL-5** as a substitute for GL-3
   #11 - 1/4" Bronze SB60 AIR 1/4" Lami w/0.030 AIR 0.035(#2) BZ ZF-D N

   Add / ~~Deduct~~: THIRTY THREE THOUSAND, THREE HUNDRED Dollars ($ 33,300)

3. Alternate Bid No. 3: **GL-6** as a substitute for GL-3
   #12 - 1/4" Gray SB60 ARG 1/4" Lami w/0.030 ARG90 0.035(#2) GY ZF-D N

   Add / ~~Deduct~~: THIRTY THREE THOUSAND, THREE HUNDRED Dollars ($ 33,300)

4. Alternate Bid: Voluntary Alternate Opportunity

   Description: _____

   Add / Deduct: _____ Dollars ($_____)

UNIT PRICES

The below unit prices will be used as an Add or Deduct from the base bid where changes in the Work are requested. The unit prices will be included in the Contract with the successful bidder. Note that if a unit price below affects the bid package and you fail to complete the unit price, you will be required to complete the unit price Work without additional compensation.
N/A

ADDITIONAL INFORMATION

The following questions will be used for bid evaluation:

1. Provide a list of your Subcontractors who will be performing work under your bid package.

Subcontractor Name	Subcontractor Scope

ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for sixty (60) days from the Bid closing date.

If the Bid is accepted by the Design Team within the time period stated above Subcontractor agrees to:

a. Execute the Agreement within five (5) days of receipt.
b. Furnish the required Certificate of Insurance within ten (10) days of receipt of Agreement.
c. Commence work as directed by the Construction Management Team.
d. The Undersigned agrees to observe Owner's policies and all federal, state, and local rules, regulations, and statutes.

BID FORM SIGNATURES

Bidder: EAST MOLINE GLASS CO dba EAST MOLINE GLASS CO.

Signature: TODD Date: 11-3-2026

Printed Name: TODD ANDERSON Title: PRESIDENT

Address: 1033 7TH ST #100 City: EAST MOLINE State: IL

Phone: 309-755-1422 Email: DAVID.BANCROFT@EASTMOLINEGLASS.COM

Attest By:

(SEAL)

END 00 4100

To: **PJ Hoerr, Inc.**
107 Commerce Place
Peoria IL 61604
Phone: (309)688-9567

Project: Tazewell County Courthouse Window Replacement Project
342 Court Street
Pekin, Illinois 61554

Construction Manager: P.J. Hoerr

Architect of Record: EA Architecture & Design, Inc.

Bidder Name KELLY GLASS, INC

Address 7400 SW ADAMS ST PEORIA, IL 61602

Phone # 309-676-3573

Contact DAN ANTRIM

Email DAN@KELLYGLASS.COM

This bid is based upon the bidding documents for this Project which consists of:

1. Specifications and Drawings issued dated October 13, 2026 via SmartBid.

2. Addenda as Follows:

Addendum No. (1) ONE dated 10/28/26;
Addendum No. ( ) _____ dated _____;
Addendum No. ( ) _____ dated _____;

Work Package (#/Description): **WINDOW REPLACEMENT PROJECT**

Having examined the site and having familiarized itself with the conditions affecting the cost of the work and with the bidding documents, Bidder hereby proposes to perform everything required and to furnish all labor, materials, necessary tools, expendable equipment and transportation services necessary to complete in a workmanlike manner the work package stated above in accordance with the bidding documents for the following sum:

Base Bid: ONE MILLION FORTY FIVE THOUSAND Dollars
($ 1,045,000.00)

TAXES: This project is tax exempt.

ALTERNATES

Alternate Bids: "Alternate Bid" means a fixed amount for all labor, material, overhead, profit, and all other costs of whatever nature and character for the item described. Alternate Bids may be used to determine the lowest responsible bidder and will not be considered in any particular order. Voluntary alternate bids may be provided at the discretion of the bidding contractor. Attach additional information if necessary to describe the alternate work.

1. Alternate Bid No. 1: **GL-4** as a substitute for GL-3
   #9 - 1/4" MC27 AIR 1/4" Lami w/0.030 AIR 0.020(#2) CL ZF-D N

   Add / Deduct: EIGHT THOUSAND EIGHT HUNDRED Dollars ($ 8,800.00)

2. Alternate Bid No. 2: **GL-5** as a substitute for GL-3
   #11 - 1/4" Bronze SB60 AIR 1/4" Lami w/0.030 AIR 0.035(#2) BZ ZF-D N

   Add / Deduct: EIGHTEEN THOUSAND FOUR HUNDRED Dollars ($ 18,400.00)

3. Alternate Bid No. 3: **GL-6** as a substitute for GL-3
   #12 - 1/4" Gray SB60 ARG 1/4" Lami w/0.030 ARG90 0.035(#2) GY ZF-D N

   Add / Deduct: EIGHTEEN THOUSAND FOUR HUNDRED Dollars ($ 18,400.00)

4. Alternate Bid: Voluntary Alternate Opportunity

   Description: N/A

   Add / Deduct: _____ Dollars ($ _____)

UNIT PRICES

The below unit prices will be used as an Add or Deduct from the base bid where changes in the Work are requested. The unit prices will be included in the Contract with the successful bidder. Note that if a unit price below affects the bid package and you fail to complete the unit price, you will be required to complete the unit price Work without additional compensation.
N/A

a. Execute the Agreement within five (5) days of receipt.
b. Furnish the required Certificate of Insurance within ten (10) days of receipt of Agreement.
c. Commence work as directed by the Construction Management Team.
d. The Undersigned agrees to observe Owner's policies and all federal, state, and local rules, regulations, and statutes.

BID FORM SIGNATURES

Bidder: KELLY GLASS, INC

Signature: _____ Date: 11/3/26

Printed Name: Dan Antrim Title: Partner

Address: 2400 SW ADAMS ST City: PEORIA State: IL

Phone: 309 676 3573 Email: dan@kellyglass.com

Attest By: _____

(SEAL)

KELLY GLASS, INC CORPORATE SEAL 1983 ILLINOIS

END 00 4100

To: **PJ Hoerr, Inc.**
107 Commerce Place
Peoria IL 61604
Phone: (309)688-9567

Project: Tazewell County Courthouse Window Replacement Project
342 Court Street
Pekin, Illinois 61554

Construction Manager: P.J. Hoerr

Architect of Record: EA Architecture & Design, Inc.

Bidder Name: BVB Glass
Address: 1011 Junction Circle, Springfield, IL 62704
Phone #: 217-787-8282
Contact: Brandon Duecker
Email: bduecker@bvbglass.com

This bid is based upon the bidding documents for this Project which consists of:

1. Specifications and Drawings issued dated October 13, 2026 via SmartBid.

2. Addenda as Follows:

Addendum No. ( ) 1 dated 10.28.26;
Addendum No. ( ) _____ dated _____;
Addendum No. ( ) _____ dated _____;

Work Package (#/Description): **WINDOW REPLACEMENT PROJECT**

Having examined the site and having familiarized itself with the conditions affecting the cost of the work and with the bidding documents, Bidder hereby proposes to perform everything required and to furnish all labor, materials, necessary tools, expendable equipment and transportation services necessary to complete in a workmanlike manner the work package stated above in accordance with the bidding documents for the following sum:

Base Bid: eight hundred thirty-nine thousand Dollars
($ 839,000.00)

TAXES: This project is tax exempt.

ALTERNATES

Alternate Bids: “Alternate Bid” means a fixed amount for all labor, material, overhead, profit, and all other costs of whatever nature and character for the item described. Alternate Bids may be used to determine the lowest responsible bidder and will not be considered in any particular order. Voluntary alternate bids may be provided at the discretion of the bidding contractor. Attach additional information if necessary to describe the alternate work.

1. Alternate Bid No. 1: **GL-4** as a substitute for GL-3
   #9 - 1/4" MC27 AIR 1/4" Lami w/0.030 AIR 0.020(#2) CL ZF-D N

   Add / Deduct: +eighteen thousand Dollars ($ 18,000.00)

2. Alternate Bid No. 2: **GL-5** as a substitute for GL-3
   #11 - 1/4" Bronze SB60 AIR 1/4" Lami w/0.030 AIR 0.035(#2) BZ ZF-D N

   Add / Deduct: + twenty-one thousand Dollars ($ 21,000.00)

3. Alternate Bid No. 3: **GL-6** as a substitute for GL-3
   #12 - 1/4" Gray SB60 ARG 1/4" Lami w/0.030 ARG90 0.035(#2) GY ZF-D N

   Add / Deduct: + twenty-one thousand Dollars ($ 21,000.00)

4. Alternate Bid: Voluntary Alternate Opportunity

   Description: Include flashing /trim around windows

   Add / Deduct: + thirty-five thousand Dollars ($ 35,000.00)

UNIT PRICES

The below unit prices will be used as an Add or Deduct from the base bid where changes in the Work are requested. The unit prices will be included in the Contract with the successful bidder. Note that if a unit price below affects the bid package and you fail to complete the unit price, you will be required to complete the unit price Work without additional compensation.
N/A

ADDITIONAL INFORMATION

The following questions will be used for bid evaluation:

1. Provide a list of your Subcontractors who will be performing work under your bid package.

Subcontractor Name	Subcontractor Scope

ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for sixty (60) days from the Bid closing date.

If the Bid is accepted by the Design Team within the time period stated above Subcontractor agrees to:

a. Execute the Agreement within five (5) days of receipt.
b. Furnish the required Certificate of Insurance within ten (10) days of receipt of Agreement.
c. Commence work as directed by the Construction Management Team.
d. The Undersigned agrees to observe Owner's policies and all federal, state, and local rules, regulations, and statutes.

BID FORM SIGNATURES

Bidder: BVB Glass

Signature: Brandon O. Duecker Date: 11/03/26

Printed Name: Brandon Duecker Title: Estimator

Address: 1011 Junction Circle City: Springfield State: IL

Phone: 217-787-8282 Email: bduecker@bvbglass.com

Attest By: _____

(SEAL)

END 00 4100

M & O ENVIRONMENTAL COMPANY
1625 W. Altorfer Drive
Peoria, IL 61615
(309) 692-6700
Fax (309) 692-9812

October 28, 2026

PJ Hoerr
107 Commerce Place
Peoria, IL 61604

Attention: Charlie Waible

Re: Asbestos Abatement
Tazewell County Courthouse- Windows
Quote #32605

Thank you for extending the opportunity to M & O Environmental Company to submit a bid on the abatement work at your facility. We are able to extend our expertise based on over 40 years of nationwide experience in the asbestos abatement, lead mitigation, mold remediation, and specialty insulation industries. We offer the following proposal for your review and acceptance.

SCOPE OF WORK
We will remove and dispose of the following asbestos containing materials utilizing non-friable removal methods:

- Approximately 112, 4'x8' windows from 2nd and 3rd floors.
- Approximately 28, 5'x9' windows from 1st floor.
- Approximately 12, 2'x4' windows from basement.
- Approximately 4 store front door entry systems.

PRICE
Our Time and Material Price: $190,000.00

CLARIFICATIONS

1. Movables by others. Work area to be free and clear of all contents, furniture, equipment, fixtures…prior to start of abatement. (If applicable.)
2. OSHA personal air monitoring is included in our price.
3. Area and/or clearance air sampling by others. (If requested)
4. Lift(s) are included in our price.
5. Bonds are not included in our price.
6. Selective demolition by others. (If required) (Window trim/casing removed by others, if necessary for window removal)
7. All put-back by others.
8. Weatherization by others. M&O will not be responsible for weatherization)
9. Layout by others. (If required)

M & O ENVIRONMENTAL COMPANY
1625 W. Altorfer Drive
Peoria, IL 61615
(309) 692-6700
Fax (309) 692-9812

GENERAL PROCEDURES
For the purposes of safety and in order to minimize the potential for the contamination of individuals, access to the actual work area shall be completely restricted once work has commenced. No personnel will be allowed access to any designated work area without proper attire and respiratory protection. Respiratory protection and proper attire shall be made available at all times during the project for use by designated representative of the owner, the consultant and/or engineer or, if applicable, the independent air monitoring hygienist who may require individuals who enter the work area shall be subject to the requirements of the M & O Environmental Respiratory Protection Program and all other appropriate programs.

INSURANCE
Third party liability insurance will be provided by M & O Environmental in the amount of $2 million. This is the standard "true occurrence" type policy, and our carrier has an "A" rating. (See attached.)

SAFETY INFORMATION
If required, material safety data sheets and/or other project information regarding surfactants, encapsulants, adhesive, etc. will be submitted for review prior to the commencement of work.

REGULATORY COMPLIANCE
All proper and required notification to the EPA and/or IDPH shall be made prior to mobilization of manpower and equipment by M & O Environmental. Appropriate documentation will be made to the owner upon request.

ON-SITE UTILITIES
Customer shall provide utilities for the subject job which includes hot and cold water, drains, electricity and the like.

WORK FORCE
Work crews are to be union members and will meet all necessary requirements.

HAULING AND DISPOSAL
Hauling shall be provided in accordance with current regulation and all waste shall be disposed of in licensed, EPA approved landfills. Burial manifests shall be submitted to the owner for his records.

DOCUMENTATION
Upon request, all documentation such as air sample reports, containment sign-in sheets, burial manifests, EPA notifications, etc. shall be submitted to the owner for his permanent files.

M & O ENVIRONMENTAL COMPANY
1625 W. Altorfer Drive
Peoria, IL 61615
(309) 692-6700
Fax (309) 692-9812

REGULATORY NOTE
Please note that our proposal has been prepared on the basis of all Federal and State regulation and guidelines in effect at the date of this proposal. All work shall be performed in a professional and workmanlike manner and in complete and legal accordance with current OSHA regulations for Asbestos (Code of Federal Regulation Title 40, Part 61, Subparts A and M), acceptable industry practices and project specifications and requirements, as applicable.

CONFIDENTIALITY
Due to the potential of emotional responses to asbestos abatement, we shall, at all times during the project, adhere to a policy of strict confidentiality. Abatement workers shall endeavor to remain in the work areas at all times and shall at no time come into contact with building occupants while wearing protective clothing and respirators.

Again, thank you for the opportunity to submit this proposal to you. M & O Environmental is confidently looking forward to providing quality asbestos abatement services to you on this and future projects.

If you have any questions on this proposal or need any additional information, please contact me.

Sincerely,
M & O ENVIRONMENTAL COMPANY

Clinton N. Tyler
Vice President

CNT: aw

M & O ENVIRONMENTAL COMPANY
1625 W. Altorfer Drive
Peoria, IL 61615
(309) 692-6700
Fax (309) 692-9812

October 28, 2026

PJ Hoerr
107 Commerce Place
Peoria, IL 61604

Attention: Charlie Waible

Re: Asbestos Abatement
Tazewell County Courthouse- Windows
Quote #32605

Again, thank you for the opportunity to submit this proposal to you. M & O Environmental is confidently looking forward to providing quality asbestos abatement services to you on this and future projects.

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. All agreements contingent upon strikers, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance. If requested in writing, we will provide additional insured status under the General Liability Policy.

If you have any questions on this proposal or need any additional information, please give me a call at 309-692-6700.

Acceptance of Proposal – The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified.

Printed Name_____

Signature _____

Date of Acceptance _____

Reference Number: Quote #32605 **T&M Price: $190,000.00**

Summit
Masonry and Stoneworks, Inc.

107 N. Commerce Place
Peoria, IL 61604
Phone: (309) 687-6153
Fax: (309) 688-9555

11/3/2026

Tazewell Court Window Air Barrier

Attention: Charlie Waibel
107, North Commerce Place
Peoria, IL 61604

Scope of Work: Fluid Applied at window installation

- Coverage of 3,700 lnft of wood blocking
- Meadows Liquid flashing or Tyvek liquid flashing per PJH
- Storage until needed
- Delivery to jobsite
- Approx (2) Cases of liquid flashing left with installer for touch up
- Patch holes at Basement windows (Approx 16 hours)

Total Proposal $46,400.00

Notable Exclusions & Assumptions

- All work to be performed during normal working hours 7:00 A.M-3:30 P.M.
- Material handling by installer
- Touch up after cutting by installer

Sincerely

Nick Hart - President
Mobile Phone: 309-264-4282
Email: nickh@pjhoerr.com

WARNER MECHANICAL
Plumbing • Heating • Process Piping

TO: **Charlie Waibel - PJ Hoerr, Inc**

RE: **Tazewell Co Courthouse Window Replacement**

DATE: **October 22, 2026**

PLUMBING PROPOSAL

INCLUSIONS:

1. REMOVE & REPLACE WATER HYDRANTS
2. REMOVE RADON PIPING
3. REWORK SPLIT SYSTEM
4. NEW DUCT WORK PIPING

EXCLUSIONS:

1. SALES TAX
2. OVERTIME OR SHIFT WORK
3. HVAC & CONDENSATE
4. FIRE PROTECTION

T&M NOT TO EXCEED: $24,600.00

****Labor rate will be $120.00 per hour**
****Material Mark Up will be 10%**

Regards,

Shane Warner

Shane Warner
Vice President

9900 W Primrose Lane – Edwards, IL 61528 ● PH: 309-691-5006 ● FAX: 309-691-5054 ● email info@warnerllc.com

KOENER Electric, Inc.
6301 SW WASHINGTON
BARTONVILLE, IL. 61607

Proposal

October 20, 2026

Tazewell County Courthouse

Re Window replacement conduit work

We propose to supply and install material for the following electrical work:

- Demo all power per drawings and walk through to allow the windows to be removed and replaced
- Rework all conduit and devises for the windows that have existing power that needs to remain per drawings and walk thorough

Total Quote: $4,957.00

Any credit/debit transactions we need to add 3%

THIS PROPOSAL DOES NOT INCLUDE:

- **Any overtime or double time**
- **Any Taxes**

This will be a binding contract once fully executed. **Payment is due with in 30 days after the completion of the project**. Interest at the rate of 18% per annum shall be charged on any unpaid balance due. Koener Electric Inc. shall be entitled to recover all cost of collection, including but not limited to reasonable fees, incurred by reason of failure to pay the balance.

The signatory of this proposal hereby represents that he/she is the property owner or is authorized agent of the property owner and has the requisite to bind the property owner to the terms and conditions hereof.

THIS PROPOSAL IS VALID FOR 30 DAYS FROM ABOVE DATE.

Sincerely,
Koener Electric Inc.

Josh Spracklen
Project Manager

Accepted by:

By:_____
Date:_____

PROJECT PROPOSAL



Customer:	P.J Hoerr (Tazewell Co. Courthouse) 107 N Commerce Place Peoria, IL 61604
Phone:	(309) 688-9567
Contact:	Charlie Waibel
Phone:	(309) 696-0971
Email:	charlie@pjhoerr.com
Salesman:	Greg Juergens
Project No.:	PJH-261102.2-01

Teufel Hunden Electronics, Inc.
3420 Veterans Dr. Suite 363
Pekin, Il 61554
309.840-4904 phone

SCOPE

Teufel Hunden Electronics will facilitate replacement of existing perimeter doors by removing and reinstalling the existing access control devices. Replacement of damaged or defective devices will be on a T&M basis. Wire, Wiremold and conduit will be considered as miscellaneous materials required to perform this work.

THE will:

- Remove access control devices on four (4) exterior perimeter doors.
- Reinstall access control devices on four (4) exterior perimeter doors.
- Remove camera cables from two (2) basement windows
- Reinstall camera cables from two (2) basement windows
- Wire and conduit to support the installation.

P.J Hoerr will be responsible for:

- City, county, state permits/license (if required) per site.

Thank you for the opportunity to provide this quote.

Regards,

Labor	$6,865.00
Misc. Materials:	$550.00
Total Excluding Tax and Shipping, Valid for 30 Days (11/2/26)	$7,415.00

Accepted by:_____ Date:_____

Disclosures and Terms of Service

Pricing Reflects Net 30 (30 days after the invoice is submitted) payment. Net 45 payment, will incur a **2.5% cost** increase, Net 90 payment will incur a **5% cost** increase. **All payments past 90 days are subject to interest terms below.**

3-Year Warranty on all workmanship. Any issues found to be the fault of workmanship or design flaws on behalf of **THE**, will be covered at no cost to the customer, for a period of 3 years from the sign-off of the project

90 Day Warranty on all manufacture's parts. Any issues found to be the result of a faulty device, will be replaced at no charge to the customer **FOR COMPONENTS ONLY**, A discounted rate of ½ (one half) of current labor charge will be applied to this scenario

Special Warranty Disclosure - All warranties are void if another vendor services a THE installed system. Any devices installed, requiring special equipment, the special equipment costs will be the responsibility of the customer for any warranty issue.

IT Disclosure - Teufel Hunden Electronics is not responsible for **I**nformation **T**echnology issues, when managed by a separate entity. All issues that cause a loss of time, productivity, or damage to equipment will be charged to the customer at Time and Materials rate. This is a separate charge, outside of the scope of work of the job. **THE** will provide information and scheduling to meet the needs of the IT department. If, for any reason, the IT department (provided by the customer) is not prepared, missing equipment, or has misconfigured their system and causes **THE** additional calls/site visits or additional meetings, **THE** will charge these costs to the customer. The charges will be charged at Technician Rate or Engineering Rate. If the project must be reengineered, the changes will be billed separately at an engineering rate.

3rd Party Disclosure - Teufel Hunden Electronics will not be responsible for departing location, under conditions outside of the control of the technician. Any additional time on site, will require a change order or service ticket, under conditions including, but not limited to: excessive hold times, improper program or function of system provided by others, faulty equipment, site access restrictions, miscommunication outside of the control of THE personnel, sudden change in customer availability, changes to job outside scope of work, lack of parts upon scheduled date of job, or return trips due to lack of necessary equipment or paperwork not being provided by others. **THE** will also not be responsible for code violations, designed or specified as it pertains to installation, service, or inspections on behalf of the 3rd party contractor. The 3rd party contractor will be responsible for implementing all pertinent codes by design, specifications, service, or inspections agreements with their own customers.

- **Bid Review Option:** Projects with logistics or other issues, which cause the start date to be 185 days or more past the acceptance of the job, may be eligible for a bid review. Any cost increases will be added as a change order to the original accepted project.
- **Changes to Jobsite, or Job Procedure**: Any bid project, which deviates from the original environment for which the bid was placed, will require a change order to accommodate for the additional time it costs our employees. Examples include (but are not limited to); drastic changes in staging areas, excessive moving of storage or parts, changes to security procedure, changes to parking, changes to safety policy that may require additional personnel or parts, changes to the area of work that affects accessibility, logistics issues which cause the cost of labor increase, changes in pandemic protocols, or anything else which affects how the job was bid for.
- **Schedule Priority**: Delays made as a result of any issues on behalf of the 3rd party entity, may result in a lower priority of the installation or service. This is in no way punitive to the customer, but rather a matter of keeping to previously agreed upon start dates and deadlines for other jobsites. **THE** will do its best to accommodate changes to the schedule.

THE will program all equipment, as stated in the scope of work. If there are additional program requests, they will be performed as a service call or a change order. The customer may choose to have **THE** manage the system remotely, for which no on-site systems administrator will be required to monitor or maintain equipment. The agreement to have **THE** manage the system remotely is referred to as the "Remote Management System" agreement. RMS agreements shall have a separate contract. If customer provides remote access to the system and agrees to the IT security agreement (as stated in the terms of the RMS agreement), **THE** will provide one year of RMS to new installs, which will apply a discount to all service and install parts during that period.

All quotes to customers with active RMS agreements, reflect the discounted rates listed in the contract. For new installs, that include this agreement, the discount rate applied is 10% for manufacturers software service agreements, and 15% on service and install parts. Additional terms of service apply.

THE will not be responsible for equipment or system integrity, if a competitor company is allowed to interact with any component of that system or its ability to communicate. Any access given to a competitor company to **THE** installed equipment will void all warranty commitments, and may incur additional charges to repair, or resecure the equipment. If a competitor company manages the IT communications, a non-disclosure and non-compete agreement must be signed, as there will be **THE** specific programming parameters and proprietary information contained within the system.

Unless otherwise agreed or stated, all engineering fees are waived upon signed agreement. All engineering documentation, which does not contain **THE** proprietary information, copyrighted information, or vendor specific agreements become the property of the customer upon completion of the installation.

If service to the equipment is severed, THE must be notified of the change in service (prior to allowing another provider to access the system) to relinquish passwords and access of the system as well as to provide THE the opportunity to remove intellectual property from the system. Any damage or theft of intellectual property to another company, may be considered damages to THE.

In the case of systems upgrades, THE is not responsible for failures of old equipment

If the system is a takeover, from another company, **THE** will not be responsible for the previous providers workmanship or misconfigured components or programming.

THE is not responsible for IT security unless otherwise stated or agreed upon, or in the case where **THE** is the IT service provider.

THE is not responsible for customer misuse, improper maintenance, or damage of equipment; especially that which leads to a security or safety breach of the customer facilities, equipment, or data.

THE is not responsible for damage, due to acts of God, terrorism, burglary, vandalism, or other events that cannot be controlled by **THE**

THE is not responsible for other vendors equipment failure.

Scope: Teufel Hunden Electronics (**THE**) agrees to provide the services and/or equipment described herein, without liability and not as an issuer in a professional and workmanlike manner for the client, listed in this quote. Electronic Monitoring, Service, or Remote Services shall be subject to the execution of a separate contract.

Interruption of service/deadline: THE is not responsible for delays or interruption of service/installation, caused by (but not limited to): strikes, riots, acts of God, infrastructure failure, or other event beyond the control of THE.

Payment Delinquency; Interest: In the event that payment due, is greater than ten (10) days delinquent, **THE** may impose and collect interest, at a rate of 1.50% per month (18% per annum), or the highest amount allowed under law, whichever is less.

Non Payment (default): If a client fails to pay for their installation within 183 days from the date of completion (as determined by THE, and not by the customer, as it pertains to the scope of work listed in the quote only), or the customer becomes insolvent or makes an assignment for the benefit of creditors, or a petition is filed against the client under the Bankruptcy Act, or if any representation, warranty or financial information made or submitted by the client shall be untrue or underperformed in any material respect, the entire amount due and payable. In such an event, the client authorizes THE to immediately, and without restriction, to enter the premises and remove all equipment (which has not been paid for). Removal of the equipment shall not be considered to constitute a waiver of any rights under the terms of agreement, nor is THE liable for any "normal" damages to property or other equipment associated with the installation, as a result of removing the equipment.

Third Party Indemnification: Customer agrees to defend, indemnify, and hold harmless THE, and it's owners/shareholders/directors/officers/employees/affiliates against any and all third party claims, losses, damages, and liabilities; including costs, expenses, and attorney fees, asserted against or suffered by THE, by reason of, arising out of, or in any way related to, in whole or in part, any death, sickness, disease, accident, bodily injury, property damage, and/or economic loss arising out of customers acts, omissions, or negligence; provided. Customer's duty hereunder shall not arise if such death, sickness, disease, accident, bodily injury, property damage, or economic loss is caused by the sole negligence or gross misconduct of THE.

Informed Customer Liabilities: In the event that a customer was informed of code violations during a consultation, bid, design, service, installation, or verbal notice of deficiency by any member of THE; that customer will assume all financial responsibility for the outcome of stated deficiency. In the case of government or private inspections, it will be the responsibility of the customer to provide for the payment of fines, and additional work resulting in a failure. In the case where injury, damage to property, or loss of life occurs, **THE** will not be responsible for the outcome, and may testify on behalf of the injured party, as to how and when the customer was informed of the occurrence. This will nullify any confidential documentation, as it pertains to the violation in question. If the violation, in any way causes a member of THE to be injured, THE customer will be held liable for all damages associated with that injury. There is also an understanding that OSHA or any other government inspection agency, may be called to investigate any notice of violation, without injury to the customer relationship to THE. This is in place to ensure that all parties conform to regulated safety conditions.

Changes to Jobsite, or Job Procedure: Any bid project, which deviates from the original environment for which the bid was placed, will require a change order to accommodate for the additional time it costs our employees. Examples include (but are not limited to); drastic changes in staging areas, excessive moving of storage or parts, changes to security procedure, changes to parking, changes to safety policy that may require additional personnel or parts, changes to the area of work that affects accessibility, logistics issues which cause the cost of labor increase, changes in pandemic protocols, or anything else which affects how the job was bid for.

Teufel Hunden Owned Equipment: In the case that **THE** provides special equipment to for a jobsite, that other entities may use, it will be the responsibility of the customer (with whom THE is contracted to perform work for) to maintain that equipment. If there is any damage to the equipment, it will be the responsibility of the customer to repair or replace the equipment, at fair market value.

Asset Protection System Disclosure: An asset protection system is **NOT** a system designed, engineered, or suggested to be a life safety system. It may only be used in the absence of code required systems, and **NOT** be used as a substitute. As such, the system may not be engineered for "full protection" of assets. **Teufel Hunden Electronics** is not responsible for damages which may be caused by improper protection of the premises.

DATE: 28 October 2026

Tazewell County
11 South 4th Street
Pekin, Illinois 61554

EA Architecture & Design, Inc.
802 N Clinton, Suite 1
Bloomington, Illinois 61704

TO: Prospective Bidders

SUBJECT: Addendum No. 1 to the Bidding Documents for:

WINDOW REPLACEMENT
342 Court Street
Pekin, Illinois 61554

This addendum forms a part of the bidding and contract documents and modifies the original bidding documents, dated 13 October 2026. Acknowledge receipt of this addendum in space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT THE BIDDER TO DISQUALIFICATION.

A. SPECIFICATIONS

1. Section 00 4100 – Bid Form
   a. Alternates
      1) Add “Alternate Bid No. 1: GL-4 as a substitute for GL-3”
      2) Add “Alternate Bid No. 2: GL-5 as a substitute for GL-3”
      3) Add “Alternate Bid No. 3: GL-6 as a substitute for GL-3”

2. Section 01 3100 – Project Coordination/General Provisions
   a. Sub-section 2 DD – Delete “Glazing contractor will be required to provide their own dumpster to support the installation of the window and door systems”
      1) Add General Contractor will provide dumpster for general cleanup.

3. Section 07 9200 – Joint Sealants

   a. Sub-section 2.3.B.1.a – Delete all acceptable products.
      1) Add Acceptable Product/manufacturer:
         “1) 756 SMS/ Dow Corning – For Exterior use”

   b. Sub-section 2.3.B.2.a – Delete all acceptable products.
      1) Add Acceptable Product/manufacturer:
         “1) 756 SMS/ Dow Corning – For Exterior use”

   c. Sub-section 2.3.B – Add the following sub-section:
      “3. SEALANT ES-5: Single-Component Silicone Sealant, adhering to weather barrier systems.
         a. Acceptable products/manufacturers:
            1) 758 / Dow Corning”

   d. Sub-section 2.3.C Polyurethane Sealants: Delete this section in its entirety.

   e. Sub-section 3.8.C.1: ES-4, ES-4A to remain, delete the remaining sealant types.

   f. Sub-section 3.8 – add the following:

"E. Interior Joints adhering to air barrier and/or liquid flashing
1. Type: ES-5
2. Color: To be selected by Architect/Engineer."

4. Section 08 5113 – Aluminum Windows

a. Sub-section 2.2.A.1 – Delete reference to 5500 Series and replace with: "725i Series Single Hung Unit With Receptor."

5. Section 08 800 – Glazing

a. Replace page 12 of specification with the attached.

B. DRAWINGS

1. Sheet A201

a. Detail 3 – Window located in the basement that is labeled W2 shall be relabeled to W1.

2. Sheet A401

a. Single Hung & Fixed Window Information – Revise the model to the following: "MODEL: 725i SERIES SINGLE HUNG UNIT WITH RECEPTOR"

b. Elevation W1 – Add the following note to elevation: "PENETRATION DETAILING NOTE: FOR EACH PENETRANT, PROVIDE PVC SLEEVE WITH A DEPTH 1.5x THE THICKNESS OF PANEL - SEAL BETWEEN PVC SLEEVE AND PANEL; AND BETWEEN PENETRANT AND PVC SLEEVE."

3. Sheet A402

a. All Details –
1) All notes regarding 22ga prefinished aluminum flashing shall be revised to the following:
"PROVIDE 18ga PRE-FINISHED ALUMINUM SILL, JAMB AND HEAD FLASHING."

b. Detail 1 –
1) Revise note regarding window bars to the following:
"ALL STEEL BARS ON BASEMENT WINDOW OPENINGS TO BE CAREFULLY REMOVED AND TURNED OVER TO OWNER; PATCH ALL HOLES LEFT FROM BOLT REMOVAL"
2) Revise note regarding window bars to the following:
"725i SERIES SINGLE HUNG UNIT WITH RECEPTOR"

c. Details 2, 3, &4 – Revise note regarding 5500 series window note to:
"725i SERIES SINGLE HUNG UNIT WITH RECEPTOR"

This Addendum consists of 2 pages with 4 attachments.
Attachments:
1) Prebid Meeting Sign in Sheet
2) PJH Bid RFI Log
3) 00 4100 – Bid Form
4) 08 8000_Page 12

END 00 9101

Tazewell County Courthouse

Window & Door Replacement

Pre-Bid Meeting: October 22nd 2026

(B

Sign In Sheet

Name	Company	Phone	Email
Brandon Duecker	BVB Glass	217.787.8282	bduecker@bvbglass.com
LEE Luschino	EMG	309-369-4282	Lee. Luschino @ Eastmanley Inc
Dan Antrim	Kelly Glass	309 205 9607	dan@kellyglass.com
MICHAEL SANCHEZ	PJH		
Joe Lambert	PJH	3	
Charlie Waibel	PJH		

REQUEST FOR INFORMATION LOG

Tazewell County Courthouse Window and Door Replacment

Date: 10/28/2026

RFI #	Status	Question	Requested By	Assigned To	Submitted Date	Response Date	Response
1	Closed	Are there any egress requirments in operable windows	KGI	Architect	10/22/2026	10/26/2026	Egress windows are not required because this is not an R-Occupancy (IBC 1030.1)
2	Closed	Confirm PJH will handle all carpentry, demo, boardups, electrical, stub-outs of hvac penetrations, and work at window-bars	KGI	PJ Hoerr	10/22/2026	10/23/2026	Confirmed
3	Closed	Confirm PJH will supply level sills and adequate substrate to caulk to at all 4 sides of new windows	KGI	PJ Hoerr	10/22/2026	10/23/2026	Confirmed
4	Closed	Confirm all work to be bid assuming normal business hours and any off-hours work or interruptions will be handled in contingency carried by PJH	KGI	PJ Hoerr	10/22/2026	10/23/2026	Confirmed
5	Open						
6	Open						
7	Open						
8	Open						
9	Open						
10	Open						
11	Open						
12	Open						
13	Open						
14	Open						

To: **PJ Hoerr, Inc.**
107 Commerce Place
Peoria IL 61604
Phone: (309)688-9567

Project: Tazewell County Courthouse Window Replacement Project
342 Court Street
Pekin, Illinois 61554

Construction Manager: P.J. Hoerr

Architect of Record: EA Architecture & Design, Inc.

Bidder Name _____

Address _____

Phone # _____

Contact _____

Email _____

This bid is based upon the bidding documents for this Project which consists of:

1. Specifications and Drawings issued dated October 13, 2026 via SmartBid.

2. Addenda as Follows:

Addendum No. ( ) _____ dated _____;
Addendum No. ( ) _____ dated _____;
Addendum No. ( ) _____ dated _____;

Work Package (#/Description): **WINDOW REPLACEMENT PROJECT**

Having examined the site and having familiarized itself with the conditions affecting the cost of the work and with the bidding documents, Bidder hereby proposes to perform everything required and to furnish all labor, materials, necessary tools, expendable equipment and transportation services necessary to complete in a workmanlike manner the work package stated above in accordance with the bidding documents for the following sum:

Base Bid: _____ Dollars

($_____)

TAXES: This project is tax exempt.

ALTERNATES

Alternate Bids: “Alternate Bid” means a fixed amount for all labor, material, overhead, profit, and all other costs of whatever nature and character for the item described. Alternate Bids may be used to determine the lowest responsible bidder and will not be considered in any particular order. Voluntary alternate bids may be provided at the discretion of the bidding contractor. Attach additional information if necessary to describe the alternate work.

1. Alternate Bid No. 1: **GL-4** as a substitute for GL-3
   #9 - 1/4" MC27 AIR 1/4" Lami w/0.030 AIR 0.020(#2) CL ZF-D N

   Add / Deduct:_____ Dollars ($_____)

2. Alternate Bid No. 2: **GL-5** as a substitute for GL-3
   #11 - 1/4" Bronze SB60 AIR 1/4" Lami w/0.030 AIR 0.035(#2) BZ ZF-D N

   Add / Deduct:_____ Dollars ($_____)

3. Alternate Bid No. 3: **GL-6** as a substitute for GL-3
   #12 - 1/4" Gray SB60 ARG 1/4" Lami w/0.030 ARG90 0.035(#2) GY ZF-D N

   Add / Deduct:_____ Dollars ($_____)

4. Alternate Bid: Voluntary Alternate Opportunity

   Description: _____

   Add / Deduct:_____ Dollars ($_____)

UNIT PRICES

The below unit prices will be used as an Add or Deduct from the base bid where changes in the Work are requested. The unit prices will be included in the Contract with the successful bidder. Note that if a unit price below affects the bid package and you fail to complete the unit price, you will be required to complete the unit price Work without additional compensation.
N/A

ADDITIONAL INFORMATION

The following questions will be used for bid evaluation:

1. Provide a list of your Subcontractors who will be performing work under your bid package.

Subcontractor Name	Subcontractor Scope

ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for sixty (60) days from the Bid closing date.

If the Bid is accepted by the Design Team within the time period stated above Subcontractor agrees to:

a. Execute the Agreement within five (5) days of receipt.
b. Furnish the required Certificate of Insurance within ten (10) days of receipt of Agreement.
c. Commence work as directed by the Construction Management Team.
d. The Undersigned agrees to observe Owner's policies and all federal, state, and local rules, regulations, and statutes.

BID FORM SIGNATURES

Bidder: _____

Signature: _____ Date: _____

Printed Name: _____ Title: _____

Address: _____ City: _____ State: _____

Phone: _____ Email: _____

Attest By: _____

(SEAL)

END 00 4100

5) Exception: If the glass is insulating glass or multiple pane glazing where the bottom edge of the glazing is 25 feet or more above any grade, roof, or walking surface, then it does not need to be safety glazing.

d. Glazing adjacent to stairways, landings, and ramps when the bottom edge of the glazing is less than 60” above the walking surface.

4.2. MONOLITHIC-GLASS TYPES

A. Glass Type GL-1 Clear Tempered glass.
1. Thickness: 1/4”
2. Provide safety glazing labeling.
3. Location and Placement: GL-1 to be placed in aluminum storefront frames associated to doors 108B, 113B, 124B, & 135B.

4.3. INSULATING-GLASS TYPES

A. Glass Type GL-2: Low-E-coated, tinted insulating glass.
1. Overall Unit Thickness: 1 inch
2. Thickness of Each Glass Lite 1/4”
3. Outdoor Lite: Tinted fully tempered float glass compliant with CPSC 16 CFR 1201.
4. Interspace Content: Air
5. Indoor Lite: Clear tempered float glass compliant with CPSC 16 CFR 1201.
6. Low-E Coating: Pyrolytic or sputtered on second or third surface.
7. Visible Light Transmittance: As indicated on A401
8. Winter Nighttime U-Factor: As indicated on A401
9. Summer Daytime U-Factor As indicated on A401
10. Solar Heat Gain Coefficient: As indicated on A401.
11. Provide safety glazing labeling.
12. Location and Placement: GL-2 to be placed in aluminum storefront frames associated to doors 108A, 113A, 124A, & 135A.

B. The following glazing types are based on the testing reports provided by Manko Window Systems, Inc; referencing Testing Report C0392.01-201-45. The following glazing shall be placed in all 725i Single Hung windows.

1. GL-3: #4 - 1/4" MC37 ARG 1/4" ARG90 0.036(#3) CL ZF-D N

2. The following are alternates and will substitute GL-3 and are listed on the Bid Form.

a. Alternate GL-4:
#9 - 1/4" MC27 AIR 1/4" Lami w/0.030 AIR 0.020(#2) CL ZF-D N

b. Alternate GL-5:
#11 - 1/4" Bronze SB60 AIR 1/4" Lami w/0.030 AIR 0.035(#2) BZ ZF-D N

c. Alternate GL-6:
#12 - 1/4" Gray SB60 ARG 1/4" Lami w/0.030 ARG90 0.035(#2) GY ZF-D N

END 08 8000

BID DOCUMENTS_10.13.26

COURTHOUSE WINDOW REPLACEMENT PROJECT



BID DOCUMENTS_10.13.26

PLAN REVIEW INFORMATION

NOTE:
A FORMAL BUILDING CODE REVIEW WAS NOT CONDUCTED BECAUSE THE EXISTING SYSTEMS ARE BEING REPLACED WITH SIMILAR EQUIPMENT. THIS REPLACEMENT DOES NOT REDUCE SYSTEM CONTROL, OPERATION, OR OCCUPANT EGRESS CAPABILITY. FURTHERMORE, ALL EGRESS HARDWARE REMAINS SIMILAR TO THE EXISTING CONFIGURATION.

BID DOCUMENTS_10.13.26

ACCESSIBILITY INFORMATION

IAC 2018 DEFINITION
EMPLOYEE WORK AREA.
ALL OR ANY PORTION OF A SPACE USED ONLY BY EMPLOYEES AND USED ONLY FOR WORK. CORRIDORS, TOILET ROOMS, BATHING ROOMS, LOCKER ROOMS, KITCHENETTES, AND BREAK ROOMS ARE NOT EMPLOYEE WORK AREAS. EMPLOYEE WORK AREAS ARE NOT CONSIDERED PUBLIC USE AREAS.

203.9 EMPLOYEE WORK AREAS.
SPACES AND ELEMENTS WITHIN EMPLOYEE WORK AREAS SHALL ONLY BE REQUIRED TO COMPLY WITH 206.2.8, 207.1, AND 215.3 AND SHALL BE DESIGNED AND CONSTRUCTED SO THAT INDIVIDUALS WITH DISABILITIES CAN APPROACH, ENTER, AND EXIT THE EMPLOYEE WORK AREA. EMPLOYEE WORK AREAS, OR PORTIONS OF EMPLOYEE WORK AREAS, OTHER THAN RAISED COURTROOM STATIONS, THAT ARE LESS THAN 300 SQUARE FEET (28 M2) AND ELEVATED 7 INCHES (180 MM) OR MORE ABOVE THE FINISH FLOOR OR GROUND WHERE THE ELEVATION IS ESSENTIAL TO THE FUNCTION OF THE SPACE SHALL NOT BE REQUIRED TO COMPLY WITH THESE REQUIREMENTS OR TO BE ON AN ACCESSIBLE ROUTE.

NOTES:
SECTION 206.2.8 IS IN REGARD TO ACCESSIBLE ROUTES - ROUTES INTO THE BUILDING ARE UNCHANGED WITH THIS WINDOW AND DOOR REPLACEMENT PROJECT. DOOR CONTROLS REMAIN UNCHANGED FOR THE DAILY OPERATION OF THE COURTHOUSE. THE COURTHOUSE PROVIDES AN ACCESSIBLE ROUTE FROM GRADE INTO THE BUILDING ON EAST SIDE OF THE BUILDING. AN ELEVATOR SERVES ALL FLOORS.

SECTION 207.1 IS IN REGARD TO MEANS OF EGRESS - THIS REPLACEMENT PROJECT DOES NOT ALTER OR CHANGE ANY PART OF THE MEANS OF EGRESS OTHER THAN THE REPLACEMENT OF EXTERIOR DOORS THAT WILL MATCH EXISTING OPERATION.

SECTION 215.3 IS IN REGARD TO AUDIBLE ALARMS - THIS PROJECT HAS NOT WORK ASSOCIATED TO THE EXISTING SYSTEM.

REPLACEMENT WINDOWS BEING PROPOSED ARE SINGLE HUNG WINDOWS THAT MATCH THE ORIGINAL DESIGN OF THE BUILDING AS INSTALLED IN 1914. THERE IS A MIX OF OPERABLE AND NON-OPERABLE SASHES THROUGHOUT THE BUILDING. ROOMS THAT INCLUDE OPERABLE SASHES HAVE BEEN IDENTIFIED BY THE COUNTY AS "EMPLOYEE WORK AREAS". THOSE AREAS INCLUDE PRIVATE OFFICES, OPEN OFFICES, COURTROOMS IN WHICH EMPLOYEES ARE RESPONSIBLE FOR DIRECT WINDOW CONTROL, JUDGES CHAMBERS, AND OTHER SPACES IN WHICH COUNTY EMPLOYEES ARE WORKING.

ASBESTOS NOTE:

HAZARDOUS MATERIAL TESTING WAS CONDUCTED ON EXISTING WINDOW SEALANTS. ASBESTOS REMOVAL WILL BE REQUIRED BEFORE REPLACEMENT WORK TO PROCEED. SEE ASBESTOS REPORT IN SPECIFICATION MANUAL

WINDOW & ALUMINUM FRAMED ENTRANCES PRODUCT SUBSTITUTIONS

FOLLOW SPECIFICATION 01 6000 TO REQUEST A FORMAL PRODUCT SUBSTITUTION. A SUBSTITUTION MUST BE APPROVED BY THE OWNER AND A/E BEFORE BEING CONSIDERED AS AN ACCEPTABLE ALTERNATE. IF SUCH PRODUCT IS SUBMITTED WITHOUT APPROVAL, IT WILL BE DENIED AND PROCUREMENT OF SPECIFIED PRODUCT SHALL BE AT THE CONTRACTOR'S EXPENSE

DRAWING INDEX

G101	TITLE SHEET
D101	DEMOLITION - ELEVATION
A101	FLOOR PLANS
A102	FLOOR PLANS
A201	BUILDING ELEVATIONS
A401	WINDOW ELEVATIONS
A402	OPENING DETAILS
A403	DOOR CONTROLS & HARDWARE

BID DOCUMENTS_10.13.26

SET NOTES:

THE WORK OF THIS PROJECT TO INCLUDE THE REMOVAL AND REPLACEMENT OF ALL EXISTING EXTERIOR WINDOWS AND ALUMINUM FRAMED ENTRANCES. LIMITED ELECTRICAL WORK TO OCCUR AT ALUMINUM ENTRANCES TO RECONNECT WIRING TO INSTALLED DOOR AND SECURITY CONTROLS.

No.	Date	REVISIONS

COPYRIGHT 2026 BY EA ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of these plans may be reproduced or transmitted in any form or by any means, electronic and mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher, except where by permitted by law.

EA ARCHITECTURE & DESIGN, INC.
802 N. CLINTON, SUITE 1
BLOOMINGTON, ILLINOIS 61701
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: npe
JOB: 26-009
TITLE SHEET
SHEET: G101
OF

CONTRACTOR	PROJECT OWNER	PROJECT INFORMATION	CODES
TBD	TAZEWELL COUNTY 11 SOUTH 4th STREET PEKIN, ILLINOIS 61554 309-478-5663	AUTHORITY HAVING JURISDICTION (AHJ): CITY OF PEKIN OCCUPANCY TYPE: A-3 / CONSTRUCTION TYPE: TYPE III-B BID DOCUMENTS DATE: 10/13/2026	THESE PLANS HAVE BEEN DESIGNED WITH THE INTENTION OF FULL COMPLIANCE WITH THE FOLLOWING CODES: 1. INTERNATIONAL BUILDING CODE, 2018 2. NATIONAL ELECTRIC CODE, 2017 3. ILLINOIS STATE PLUMBING CODE, 77; PART 890 4. INTERNATIONAL MECHANICAL CODE, 2018 5. INTERNATIONAL FIRE CODE, 2018 6. INTERNATIONAL ENERGY CONSERVATION CODE, 2024 7. NFPA 101, LIFE SAFETY CODE 8. ILLINOIS ACCESSIBILITY CODE, 2018 9. AMERICAN DISABILITIES ACT, 2010

I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED HEREIN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.
I AM DULY LICENSED ARCHITECT/ENGINEER UNDER THE LAWS OF THE STATE OF ILLINOIS.

SIGNATURE:_____

NAME:_____

DATE:_____

LICENSE RENEWAL DATE:_____

PAGES OR DIVISIONS COVERED BY THIS CERTIFICATION:

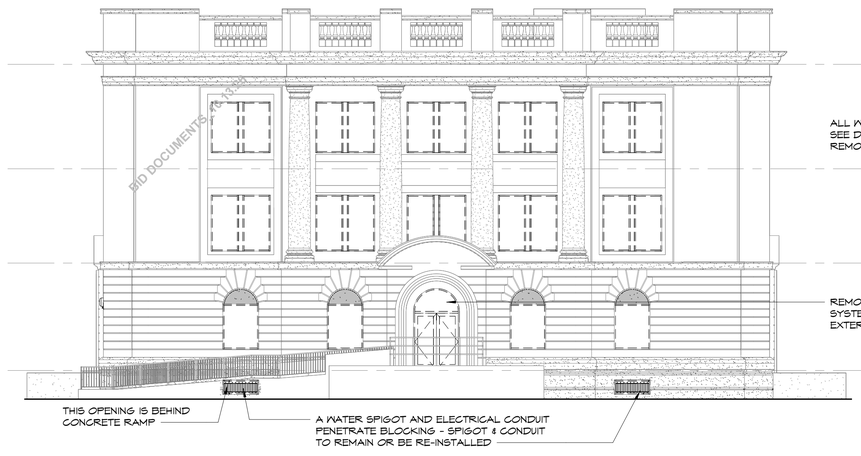
_____

BID DOCUMENTS_10.13.26

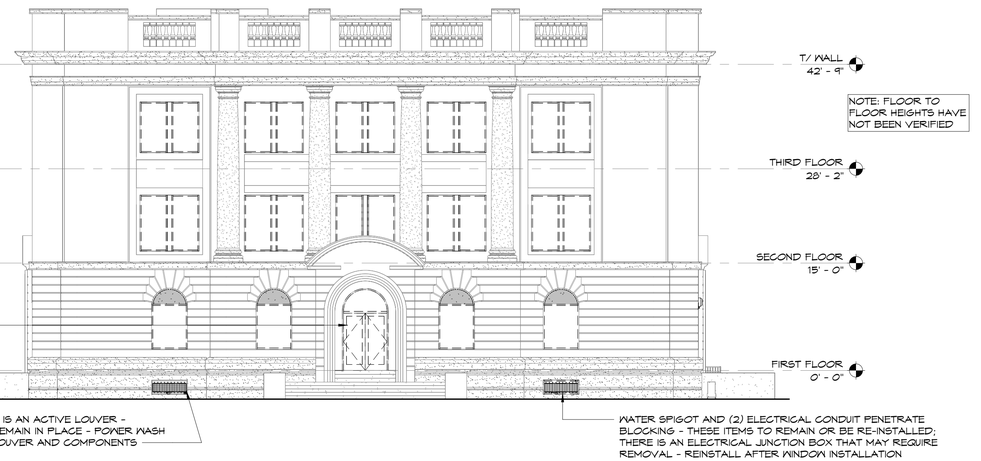
10/13/2026 3:40:15 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt



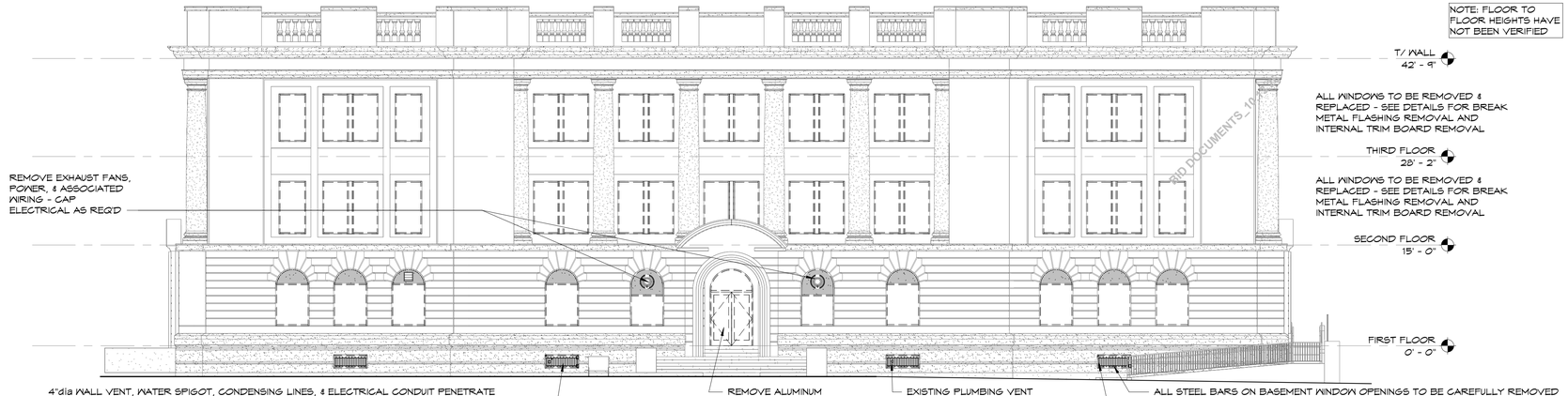
44 DEMOLITION - NORTH ELEVATION
1" = 10'-0"



3 DEMOLITION - EAST ELEVATION
1" = 10'-0"



2 DEMOLITION - WEST ELEVATION
1" = 10'-0"



1 DEMOLITION - SOUTH ELEVATION
1" = 10'-0"

BID DOCUMENTS_10.13.26

No.	Date	REVISIONS

COPYRIGHT 2026 BY EA ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of this document may be copied, reproduced or transmitted in any form or by any means, graphic, electronic and mechanical, including photocopying, recording, taping or information storage and retrieval systems, without the written permission of EA, except where by permitted by law.

EA ARCHITECTURE & DESIGN, INC.
802 N. CLINTON, SUITE 1
BLOOMINGTON, ILLINOIS 61701
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

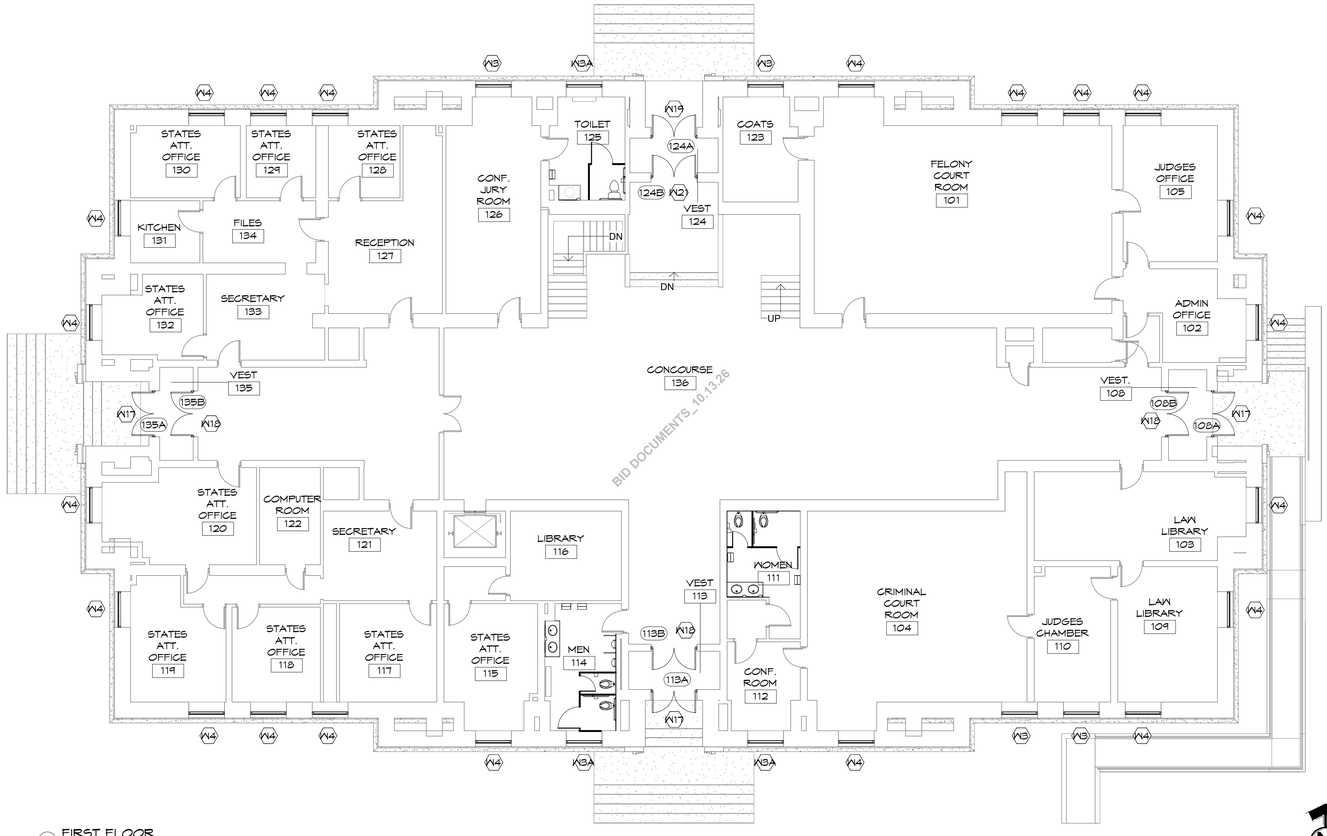
WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: npe
JOB: 26-009
DEMOLITION - ELEVATION
SHEET: D101
OF

10/13/2026 8:40:28 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt

BID DOCUMENTS_10.13.26

BID DOCUMENTS_10.13.26



2 FIRST FLOOR
1" = 10'-0"

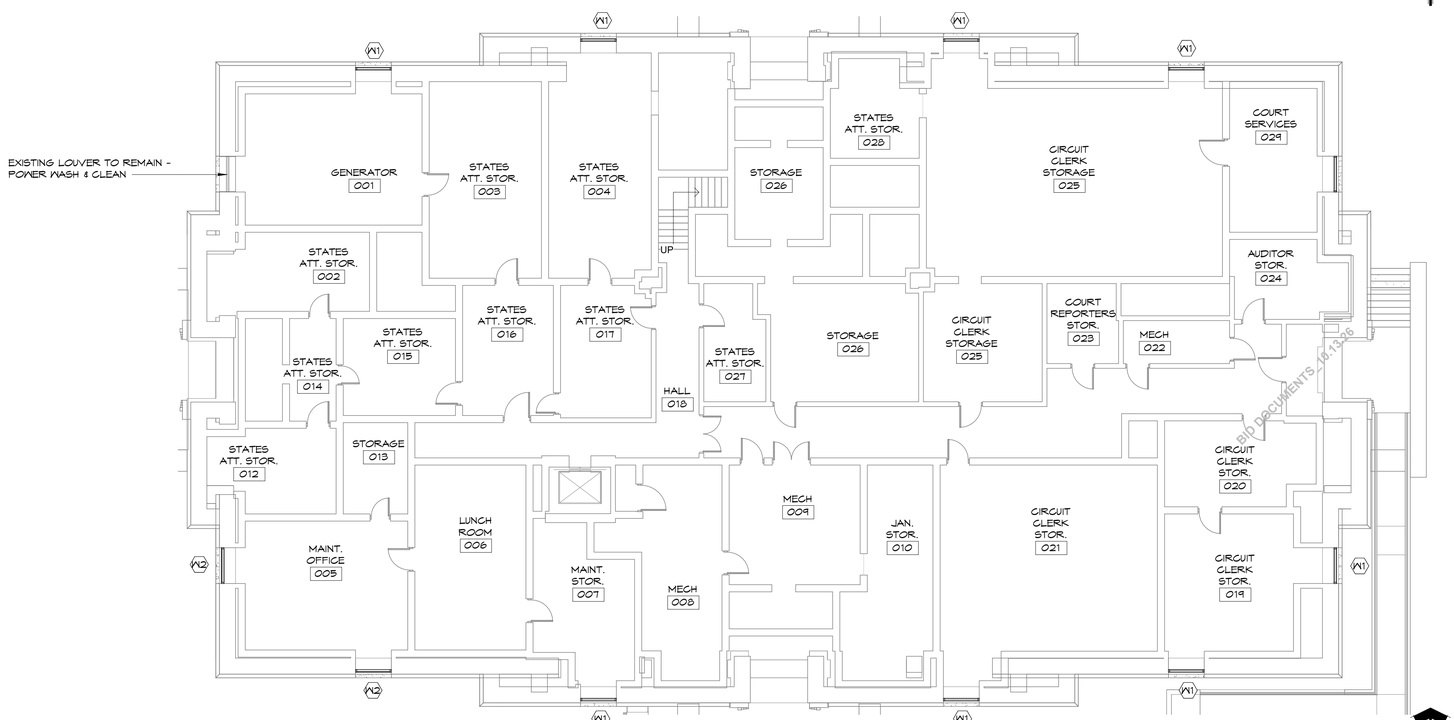
FIRST PLAN NOTES

1. ALL VESTIBULE EXTERIOR DOORS & ONE INTERIOR DOOR HAVE ACCESS CONTROL SYSTEMS - SEE SHEET A403 FOR DOOR CONTROL DIAGRAMS

2. SEE A401 FOR ELEVATIONS AND A402 FOR DETAILS.

3. COORDINATE SCHEDULE OF REMOVAL AND REINSTALLATION OF OPENINGS w/ OWNER

4. THE INTENT FOR THE WINDOW REPLACEMENT IS TO REUSE EXISTING WOOD TRIM - CAREFULLY REMOVE THIS MATERIAL IF REQ'D TO BE REMOVED FOR WINDOW INSTALLATION.



1 BASEMENT PLAN
1" = 10'-0"

BASEMENT PLAN NOTES

1. SEE D101 FOR LOCATION OF MEP SYSTEMS THAT PENETRATE THE WINDOW PANEL OR WOOD BLOCKING & FLASHINGS AROUND OPENING. THESE SYSTEMS TO BE RE-INSTALLED TO PROPER OPERATION AFTER INSTALLATION OF WINDOW SYSTEM

2. SEE A401 FOR ELEVATIONS AND A402 FOR DETAILS.

3. COORDINATE SCHEDULE OF REMOVAL AND REINSTALLATION OF OPENINGS w/ OWNER

4. CAREFULLY REMOVE ALL STEEL BARS AT WINDOW OPENINGS AND TURNOVER TO OWNER; PATCH ALL HOLES LEFT FROM BOLT REMOVAL

No.	Date	REVISIONS

COPYRIGHT 2026 BY E.A. ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of these drawings may be reproduced or transmitted in any form or by any means, electronic and mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing, except where by permitted by law.

E.A. ARCHITECTURE & DESIGN, INC.
802 N. CLINTON, SUITE 1
BLOOMINGTON, ILLINOIS 61701
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

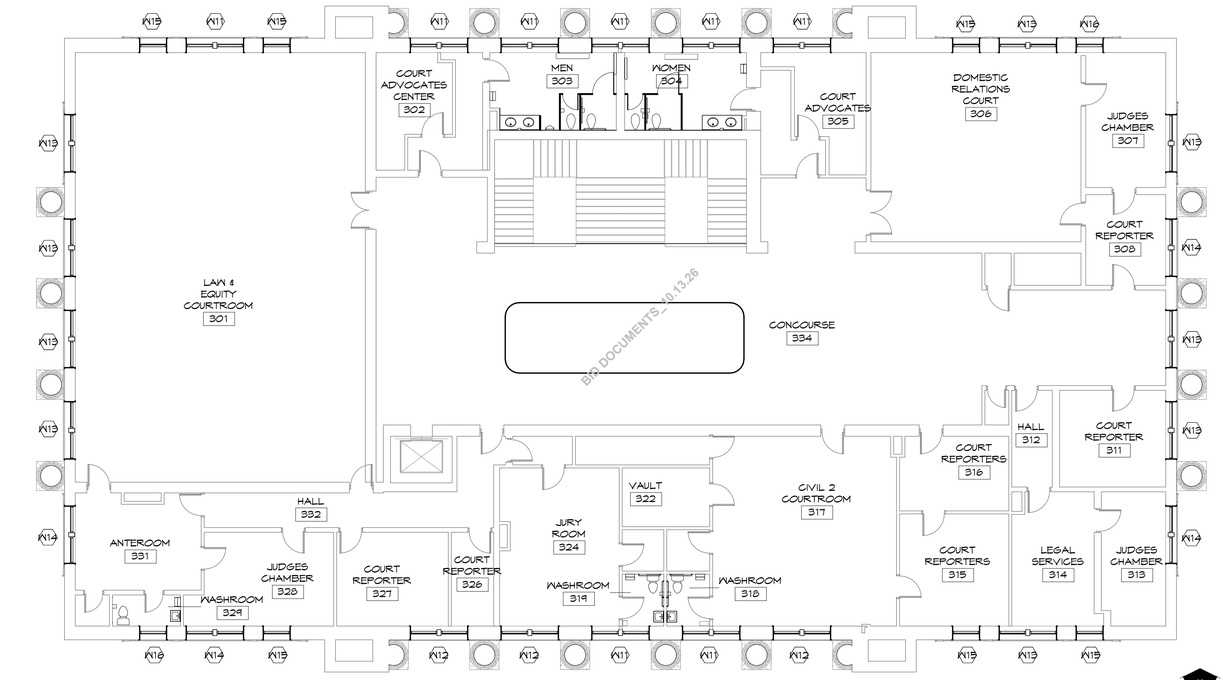
WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: npe
JOB: 26-009
FLOOR PLANS
SHEET: A101
OF

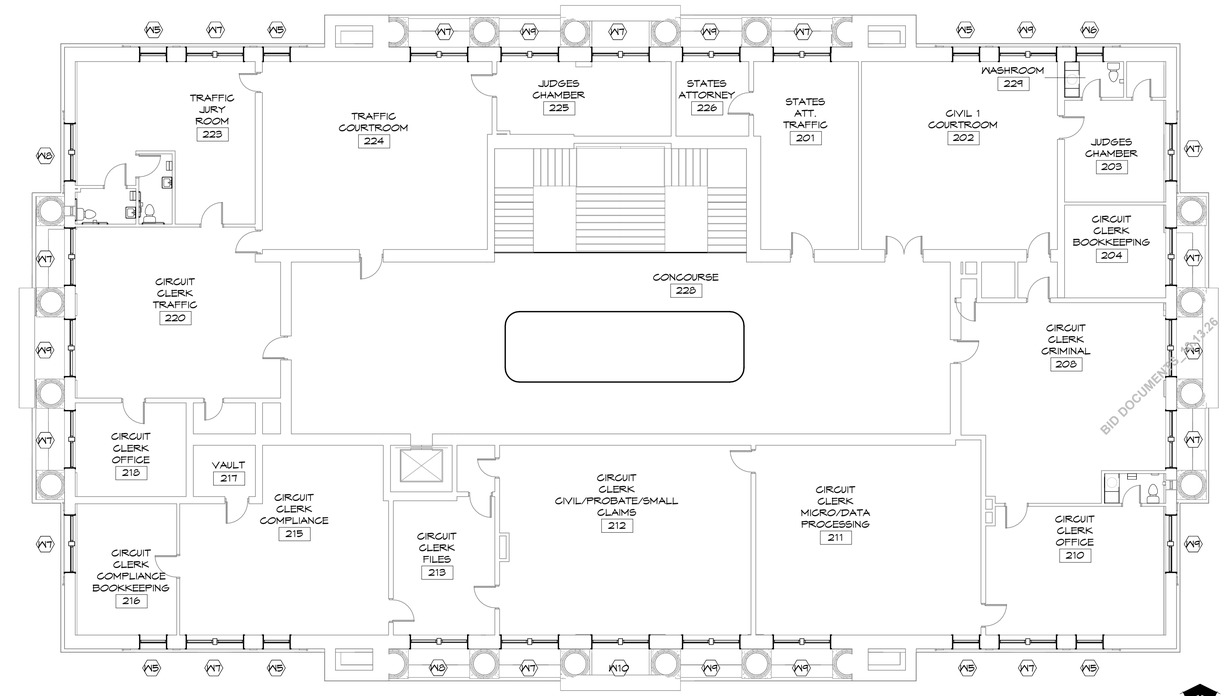
10/13/2026 3:40:32 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt

BID DOCUMENTS_10.13.26

BID DOCUMENTS_10.13.26



2 THIRD FLOOR
1" = 10'-0"



1 SECOND FLOOR
1" = 10'-0"

SECOND & THIRD FLOOR PLAN NOTES

1. THE INTENT FOR THE WINDOW REPLACEMENT IS TO REUSE EXISTING WOOD TRIM - CAREFULLY REMOVE THIS MATERIAL IF REQD TO BE REMOVED FOR WINDOW INSTALLATION.

2. SEE A401 FOR ELEVATIONS AND A402 FOR DETAILS.

3. COORDINATE SCHEDULE OF REMOVAL AND REINSTALLATION OF OPENINGS W/ OWNER

No.	Date	REVISIONS

COPYRIGHT 2026 BY EA ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic and mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher, except where by permitted by law.

EA ARCHITECTURE & DESIGN, INC.
802 N. CLINTON, SUITE 1
BLOOMINGTON, ILLINOIS 61701
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: npe
JOB: 26-009
FLOOR PLANS
SHEET: A102
OF

10/13/2026 3:40:40 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt

BID DOCUMENTS_10.13.26

BID DOCUMENTS_10.13.26



4 NORTH ELEVATION
1/8" = 1'-0"



3 EAST ELEVATION
1/8" = 1'-0"



2 WEST ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
1/8" = 1'-0"

COPYRIGHT 2026 BY E.A. ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of this document may be copied, reproduced or transmitted in any form or by any means whatsoever, graphic and mechanical, including photocopying, recording, taping or any information or retrieval system, without the prior written consent of E.A. Architecture & Design, Inc. except where by permitted by law.

No.	Date	REVISIONS

EA ARCHITECTURE & DESIGN, INC.
802 N. CLINTON, SUITE 1
BLOOMINGTON, ILLINOIS 61701
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

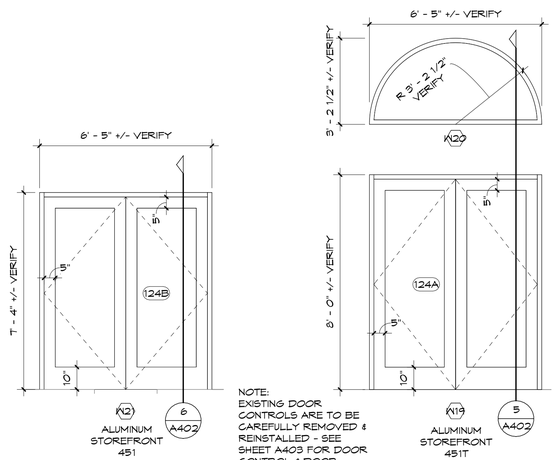
WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: Author
JOB: 26-009
BUILDING ELEVATIONS
SHEET: A201
OF

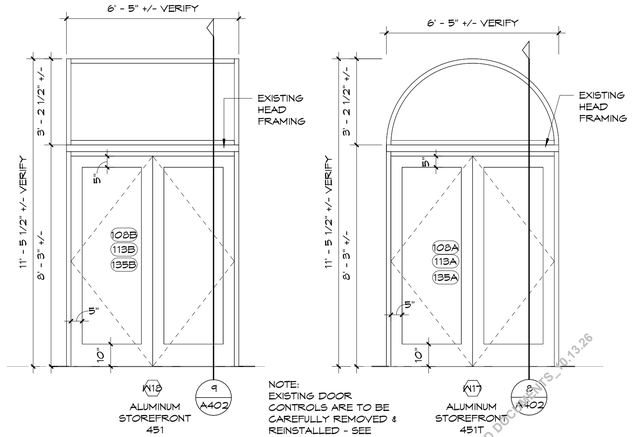
10/13/2026 8:40:57 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt

BID DOCUMENTS_10.13.26

BID DOCUMENTS_10.13.26



NOTE:
EXISTING DOOR CONTROLS ARE TO BE CAREFULLY REMOVED & REINSTALLED - SEE SHEET A403 FOR DOOR CONTROL & DOOR HARDWARE NOTES



NOTE:
EXISTING DOOR CONTROLS ARE TO BE CAREFULLY REMOVED & REINSTALLED - SEE SHEET A403 FOR DOOR CONTROL & DOOR HARDWARE NOTES

GENERAL NOTES - ALUMINUM SYSTEMS:

1. INSTALL ALUMINUM STOREFRONT SYSTEMS AND ALUMINUM PUNCHED OPENINGS AS PER MANUFACTURERS RECOMMENDATIONS.

2. ALL ANCHORING FOR SYSTEMS TO BE PER MANUFACTURERS RECOMMENDATIONS.

3. PROVIDE SEPERATION BETWEEN DISSIMILAR MATERIALS.

4. PROVIDE ALL BLOCKING AND SHIMS AS REQUIRED.

5. CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS PRIOR TO ORDERING MATERIAL.

6. GASKET COLOR SELECTION TO BE APPROVED BY ARCHITECT/OWNER.

7. ALL NOTES ARE TYPICAL, U.N.O.

8. STOREFRONT ENTRANCE & TRANSOM SYSTEMS ARE BASED ON KAWNEER 451T SYSTEM FOR EXTERIOR FRAMES & KAWNEER 451 SYSTEM FOR INTERIOR FRAMES

9. INTERIOR GLAZING SHALL BE 3/8" GLAZING - CLEAR FINISH UNLESS NOTED OTHERWISE.

10. EXTERIOR GLAZING SHALL BE MULTI-PANE WITH A TOTAL THICKNESS OF 1" AND SHALL MEET THE ENERGY CODE REQUIREMENTS AS LISTED BELOW.

11. GLAZING SHALL BE TEMPERED AS REQUIRED BY CODE REGARDLESS OF IT BEING NOTED OR NOT NOTED

12. ENERGY CODE REQUIREMENTS OF OPENINGS
THE FOLLOWING SHALL BE THE MINIMUM VALUES FOR THE ENTIRE SYSTEM:

FIXED FENESTRATION =	U-0.34
ENTRANCE DOORS =	U-0.63
FIXED SHGC =	SHGC-0.38
OPERABLE SHGC =	SHGC-0.33

13. PROVIDE SAMPLES OF THE FOLLOWING FOR OWNER SELECTION:
GUARDIAN SN68 LOW-e
GUARDIAN SN62/27 LOW-e
GUARDIAN SN62/27 LOW-e + GRAY TINT

SINGLE HUNG & FIXED WINDOW INFORMATION

BASIS OF DESIGN -
MANUFACTURER: MANKO WINDOW SYSTEMS INC.
MODEL: 5500 SERIES SINGLE HUNG SYSTEM
COLOR: TO BE SELECTED BY OWNER AND WILL BE EITHER:
BONE WHITE OR CLASSIC DARK BRONZE BEST
WINDOW COATINGS FINISH: 20-YEAR COATINGS WARRANTY

REQUIRED U-VALUE =	COG - U-0.22
	FIXED WHOLE WINDOW - U-0.30
	SINGLE HUNG WHOLE WINDOW - U-0.41
REQUIRED SHGC =	COG - SHGC-0.25
	FIXED WHOLE WINDOW - SHGC-0.24
	SINGLE HUNG WHOLE WINDOW - SHGC-0.20
VISIBLE LIGHT TRANSMITTANCE	
	COG - VT-0.60
	FIXED WHOLE WINDOW - VT-0.53
	SINGLE HUNG WHOLE WINDOW - VT-0.45

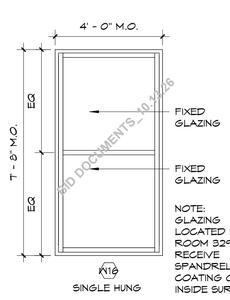
OPAQUE PANELS TO BE BASED ON THE INTERSTATE PANEL COMPANY 5-PLY INSULATED PANEL WITH HDPP CORE AND EMBOSSED PANEL FINISHES - COLOR TO MATCH THE WINDOW FRAME COLOR

PRODUCT SUBSTITUTIONS CAN BE MADE BY FOLLOWING THE REQUIREMENTS IN SPECIFICATION 01 6000

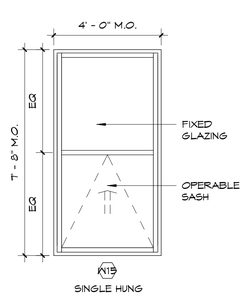
GENERAL NOTES:
1. OVERALL OPENINGS SHOWN ON THIS SHEET ARE THE ROUGH MASONRY OPENINGS. DIMENSIONS DO NOT TAKE INTO ACCOUNT EXISTING BLOCKING THAT REDUCE THE OPENING WIDTH OR HEIGHT. ALL OPENINGS SHALL BE FIELD MEASURED AND VERIFIED BEFORE PROCUREMENT.

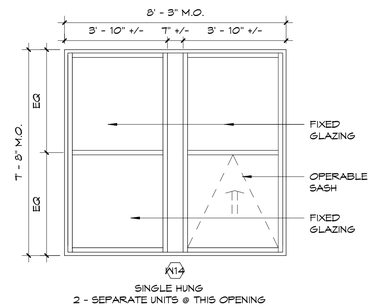
2. FRAMES W7 - W14 ARE ASSUMED TO BE 2-UNITS WITH SEPARATION BY EXISTING FRAMING - EXISTING DETAILING AS SHOWN ON A402 INDICATES FRAMING TO BE PRESENT. FIELD VERIFY THIS CONDITION.

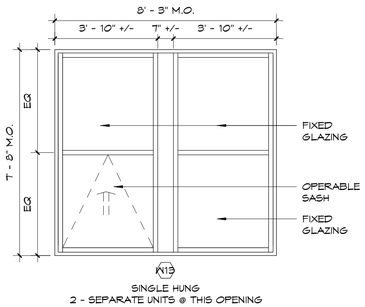
3. TEMPERED GLAZING MUST BE PROVIDED AS CODE REQUIRES. WINDOW LOCATIONS ADJACENT AND NEAR SWINGING DOORS, GLAZING WITHIN 18" OF A FLOOR SURFACE, AND OTHER REQUIRED CODE LOCAITONS MUST BE PROVIDED AS TEMPERED.

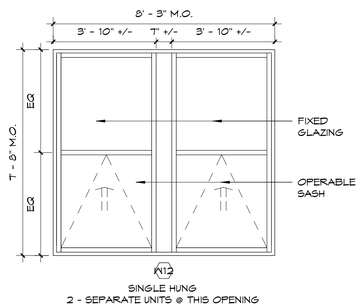


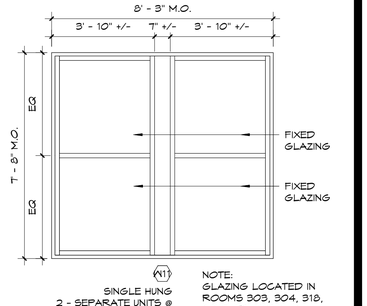
NOTE:
GLAZING LOCATED IN ROOM 329 TO RECEIVE SPANDREL COATING ON INSIDE SURFACE



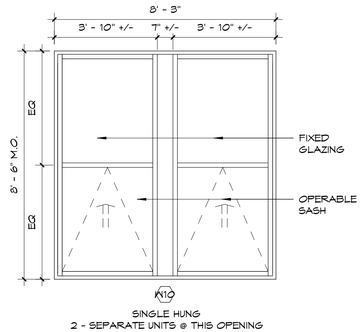


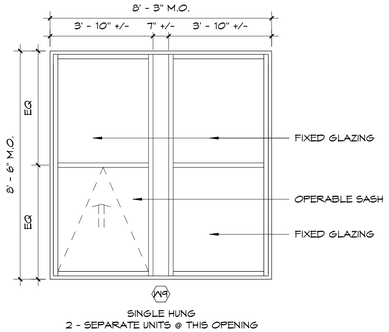


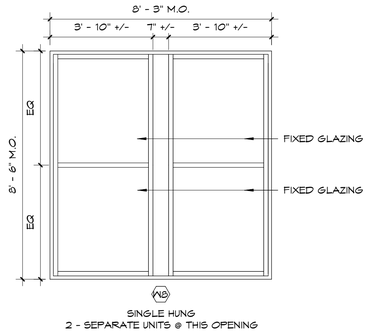


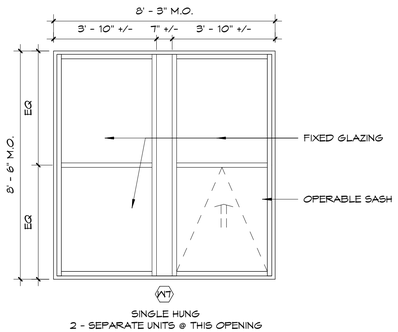


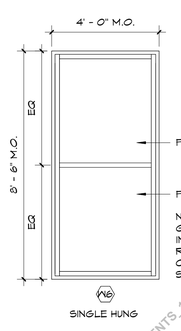
NOTE:
GLAZING LOCATED IN ROOMS 303, 304, 318, & 319 TO RECEIVE SPANDREL COATING ON INSIDE SURFACE



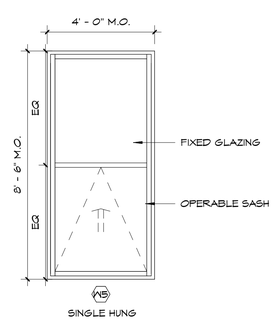


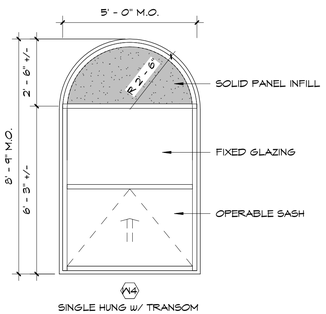


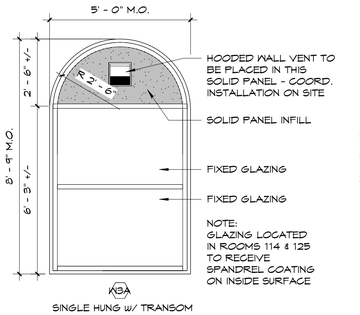




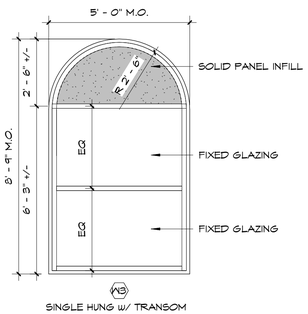
NOTE:
GLAZING LOCATED IN ROOM 229 TO RECEIVE SPANDREL COATING ON INSIDE SURFACE

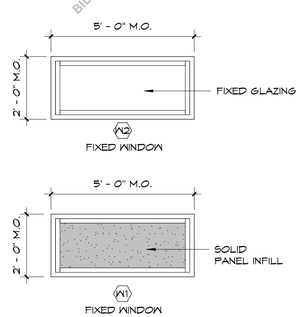






NOTE:
GLAZING LOCATED IN ROOMS 114 & 125 TO RECEIVE SPANDREL COATING ON INSIDE SURFACE





NOTE:
DIMENSIONS ON THIS SHEET ARE APPROXIMATE AND BASED ON EXISTING MASONRY OPENINGS. IT HAS BEEN ASSUMED THAT THE ORIGINAL WOOD BLOCKING IS IN PLACE AND REDUCES THE CLEAR OPENING.

THE CONTRACTOR MUST FIELD-VERIFY ALL DIMENSIONS, BLOCKING CONFIGURATIONS, RADIUS MEASUREMENTS, AND FLASHING REQUIREMENTS PRIOR TO FABRICATION AND /OR INSTALLATION.

No.	Date	REVISIONS

COPYRIGHT 2026 BY EA ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of these drawings may be reproduced or transmitted in any form or by any means, electronic and mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher, except where by permitted by law.

EA ARCHITECTURE & DESIGN, INC.
502 N. CLINTON, SUITE 1
BLOOMINGTON, ILLINOIS 61701
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: npe
JOB: 26-009
WINDOW ELEVATIONS
SHEET: A401
OF

BID DOCUMENTS_10.13.26

10/13/2026 8:41:02 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt

BID DOCUMENTS_10.13.26

BID DOCUMENTS_10.13.26

TYPICAL DETAIL NOTES:
1. EXISTING WINDOW REMOVAL IS TO OCCUR FROM THE EXTERIOR OF THE BUILDING. MINIMAL WORK IS ANTICIPATED ON THE INTERIOR SIDE OF WINDOW. CAREFUL REMOVAL AND REINSTALLATIONS OF INTERIOR WINDOW TRIM IS REQUIRED. REPLACEMENT TRIM, IF REQ'D, SHALL MATCH EXISTING, INCLUDING STAIN COLOR.

2. 22ga PRE-FINISHED ALUMINUM BREAK-METAL FLASHINGS ARE TO BE PROVIDED AT ALL HEAD, JAMB, AND SILL CONDITIONS. SEALANT SHALL BE PROVIDED AS RECOMMENDED BY WINDOW MANUFACTURER.

3. EXISTING DETAILING INDICATES A RIPPED 2X2 WOOD BLOCKING AROUND EXTERIOR EDGE OF WINDOW. THE INTENT FOR THAT BLOCKING IS TO REMAIN. REPLACE IF ONLY IF DAMAGED OR ROTTEN

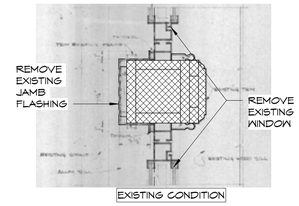
4. EXISTING OPENING FRAME REPRESENTED BY CROSS-HATCHED PATTERN TO REMAIN. THIS HAS BEEN SHOWN IN BOTH THE EXISTING AND CONSTRUCTION DETAILS. NOTIFY A/E IMMEDIATELY IF THIS FRAMING IS NOT ENCOUNTERED.

5. THE INTENT IS TO LEAVE EXISTING MARBLE PANELS & TRIMS IN PLACE DURING WINDOW/DOOR REMOVAL AND REPLACEMENT. NOTIFY A/E IMMEDIATELY IF A UNIT CANNOT BE REMOVED WITHOUT DISRUPTING EXISTING MARBLE CONSTRUCTION

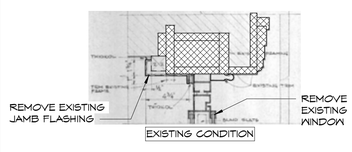
6. ALL BLOCKING BEING INSTALLED FOR THE INSTALLATION OF THESE SYSTEMS SHALL BE FIRE-TREATED. SEE 06 1000.

7. EXISTING WOOD TRIMS TO REMAIN ARE NOTED TO BE REMOVED AND REINSTALLED. IF TRIMS ARE DAMAGED AND CAN NOT BE USED, PROVIDE TRIMS TO MATCH PROFILE, STAIN, AND COLOR FOR THE ENTIRE OPENING TO WHICH IT IS TO BE APPLIED. FOLLOW 06 4000 FOR REQUIREMENTS.

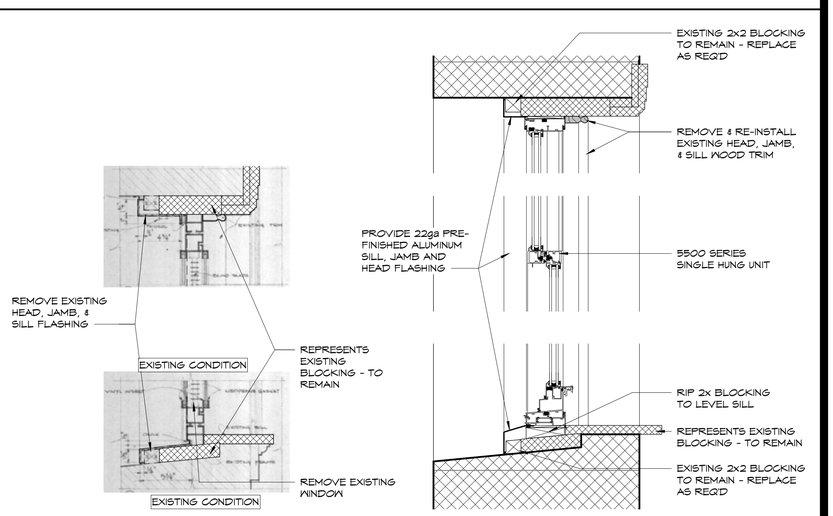
BID DOCUMENTS_10.13.26



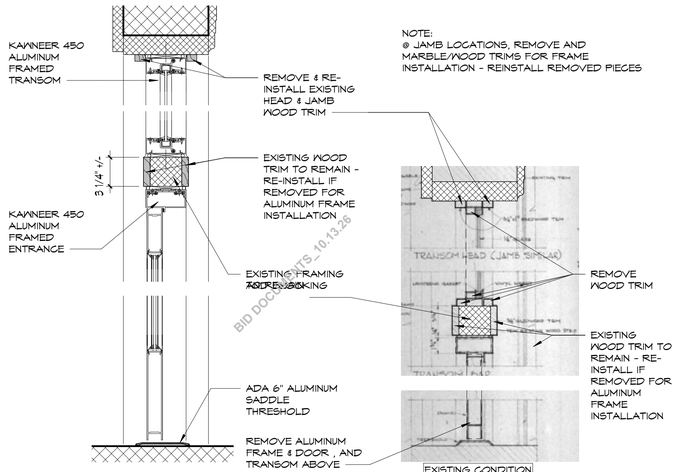
4 W7 - W14 MIDDLE JAMB DETAL
1 1/2" = 1'-0"



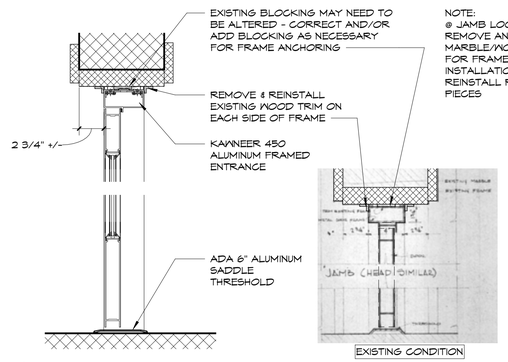
3 TYPICAL JAMB DETAIL
1 1/2" = 1'-0"



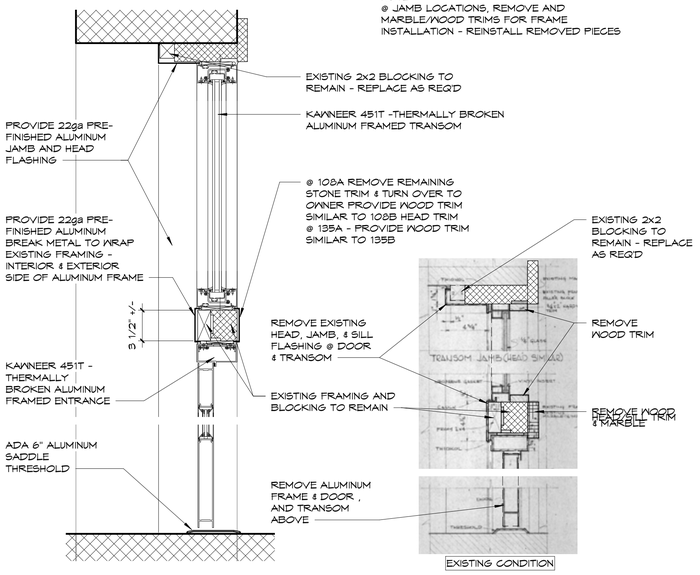
2 W3 - W16 TYPICAL SILLS & HEAD DETAILS, U.N.O.
1 1/2" = 1'-0"



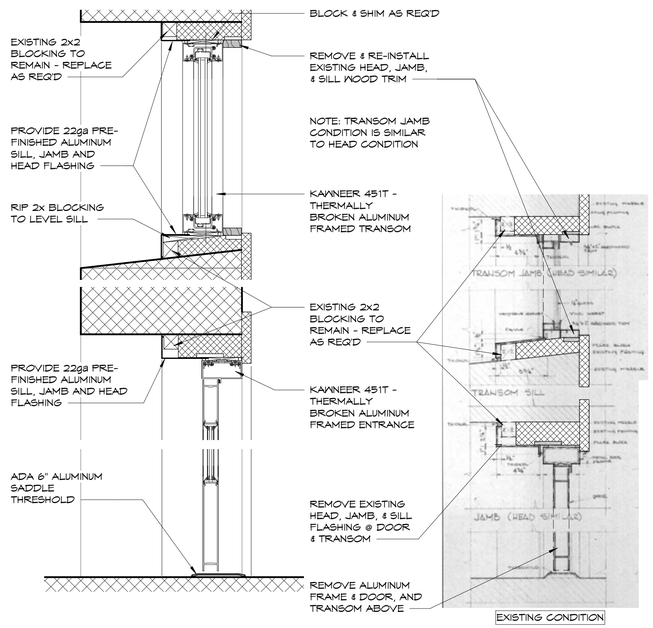
9 W18 DETAILS
1 1/2" = 1'-0"



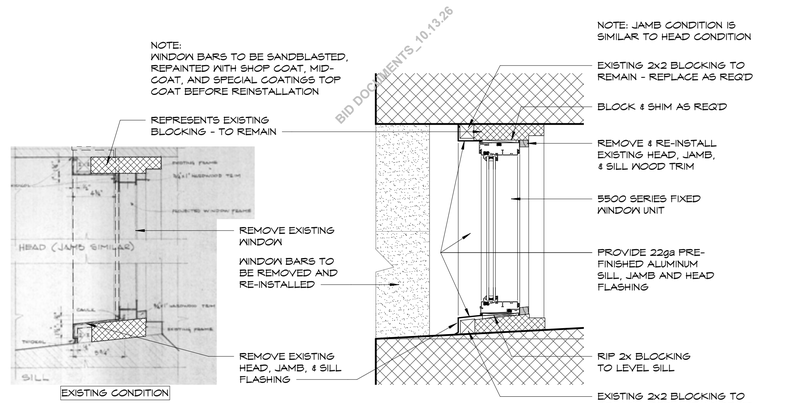
6 W21 DETAILS
1 1/2" = 1'-0"



8 W17 DETAILS
1 1/2" = 1'-0"



5 W19 & W20 DETAILS
1 1/2" = 1'-0"



1 W1 & W2 DETAILS
1 1/2" = 1'-0"

COPYRIGHT 2026 BY EA ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic and mechanical, including photocopying, recording, or any information or storage retrieval system, without permission in writing from the publisher, except where by permitted by law.

No.	Date	REVISIONS

EA ARCHITECTURE & DESIGN, INC.
802 N. CLINTON, SUITE 1
BLOOMINGTON, ILLINOIS 61701
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: npe
JOB: 26-009
OPENING DETAILS
SHEET: A402
OF

10/13/2026 3:42:59 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt

BID DOCUMENTS_10.13.26

DOOR HARDWARE AND CONTROL NOTES

1. ALL DOOR CONTROL SYSTEMS TO BE CAREFULLY REMOVED AND REINSTALLED ON DOORS SHOWN ON THIS SHEET. CONTRACTOR IS RESPONSIBLE TO SURVEY, TAKE INVENTORY, STORE, AND REINSTALL ALL DOORS TO PROPER OPERATION. CONTRACTOR SHALL COORDINATE ALL WORK WITH OWNER BEFORE REMOVAL OF ANY CONTROL. A MIN. NOTICE OF 72 HOURS IS REQUIRED FOR WORK TO COMMENCE ON ANY DOOR. WORK CLOSELY WITH OWNER TO REMOVE AND REPLACE ALL ENTRANCES.

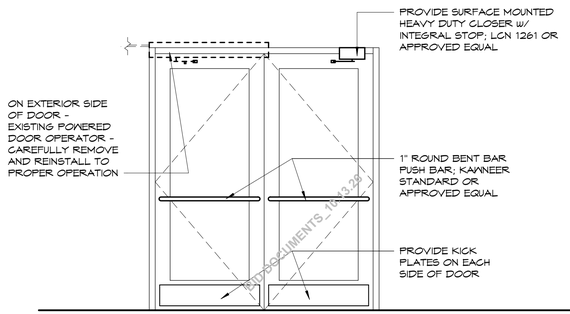
2. ALL DOOR HARDWARE ON THIS SHEET SHALL BE PROVIDED BY THE ALUMINUM STOREFRONT INSTALLER/CONTRACTOR. KICK PLATES AS SHOWN ARE AN OWNER REQUIREMENT. HARDWARE SELECTION HAS BEEN BASED ON KAWNEER'S RECOMMENDED HARDWARE. SUBSTITUTES SHALL BE SUBMITTED FOLLOWING SPECIFICATION 01 6000. NO SUBSTITUTE ALLOWED UNLESS APPROVAL HAS BEEN MADE BY A/E.

3. ALL DOOR HARDWARE SHALL BE PUSH/PULL AND BE ADA ACCESSIBLE & COMPLY WITH THE IAC CODE REQUIREMENTS (IAC 400.120.d & 404.2.7). ALL CLOSERS TO HAVE BACKCHECK. THE MANUAL FORCE REQUIRED TO OPERATE DOOR SHALL NOT EXCEED FIVE LBS.

4. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34" MIN. AND 48" MAX. A.F.F. LOCKS USED ONLY FOR SECURITY PURPOSES AND NOT USED FOR NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT.

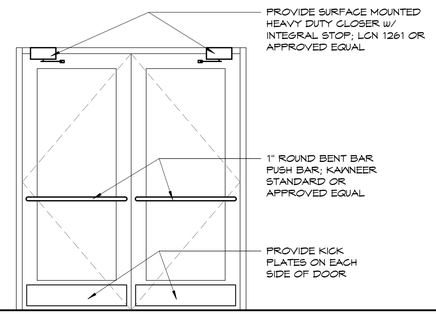
5. ALL DOOR HARDWARE TO BE HEAVY COMMERIAL GRADE, CYLINDRICAL TYPE, COMPYING WITH BHMA A156.2, ERIES 4000, GRADE 1, WITH NICKEL FINISH. CATALOG CUTS FOR ALL DOOR HARDWARE SHALL BE SUBMITTED FOR CODE REVIEW AND OWNER/ARCHITECT APPROVAL.

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL



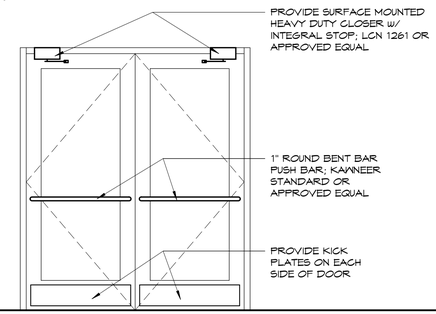
108B
EAST VESTIBULE 108
INTERIOR SIDE OF DOOR

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL



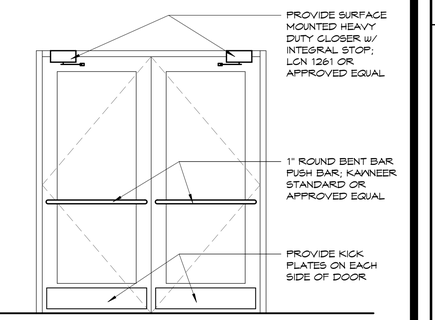
DOOR 124B
NORTH VESTIBULE 124
INTERIOR SIDE OF DOOR

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL



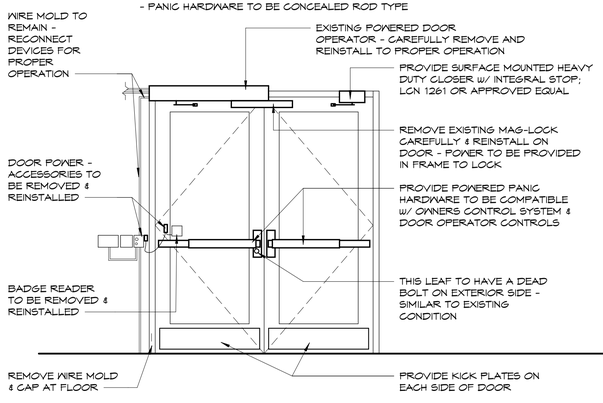
113B
SOUTH VESTIBULE 113
INTERIOR SIDE OF DOOR

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL



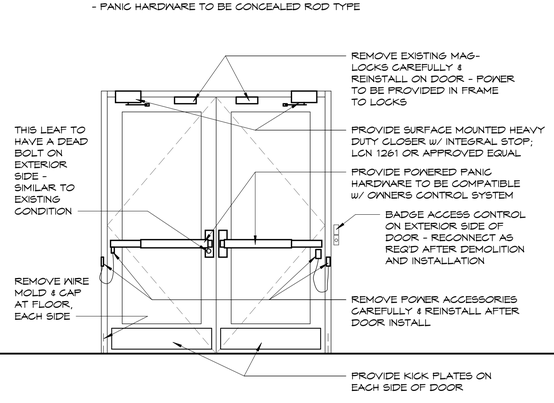
DOOR 135B
WEST VESTIBULE 135
INTERIOR SIDE OF DOOR

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- PERIMETER WEATHERSTRIPPING
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL
- PANIC HARDWARE TO BE CONCEALED ROD TYPE



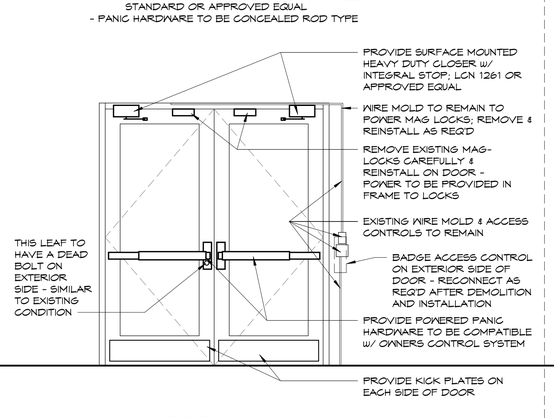
108A
EAST VESTIBULE 108
INTERIOR SIDE OF DOOR

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- PERIMETER WEATHERSTRIPPING
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL
- PANIC HARDWARE TO BE CONCEALED ROD TYPE



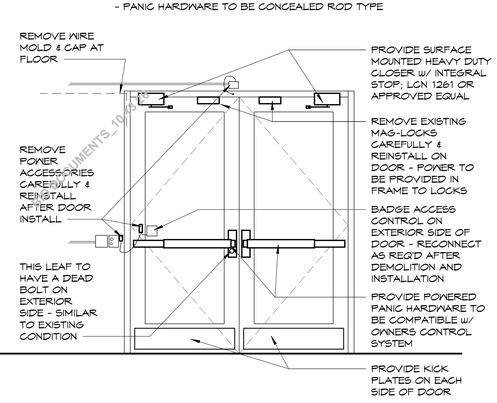
DOOR 124A
NORTH VESTIBULE 124
INTERIOR SIDE OF DOOR

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- PERIMETER WEATHERSTRIPPING
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL
- PANIC HARDWARE TO BE CONCEALED ROD TYPE



DOOR - 113A
SOUTH VESTIBULE 113
INTERIOR SIDE OF DOOR

DOOR TO RECEIVE:
- CONTINUOUS HINGE EACH LEAF
- ADA ALUMINUM THRESHOLD - CONTRACTOR TO VERIFY REQ'D WIDTH
- PERIMETER WEATHERSTRIPPING
- ALUMINUM MANUF. 1" ROUND BENT BAR 'ARCHITECT CLASSIC' PULL HANDLE EACH LEAF; KAWNEER STANDARD OR APPROVED EQUAL
- PANIC HARDWARE TO BE CONCEALED ROD TYPE



DOOR 135A
WEST VESTIBULE 135
INTERIOR SIDE OF DOOR

1 DOOR HARDWARE INFORMATION & CONTROL SCHEMATIC
1/2" = 1'-0"

BID DOCUMENTS_10.13.26

No.	Date	REVISIONS

COPYRIGHT 2026 BY EA ARCHITECTURE & DESIGN, INC.
All rights reserved. No part of these documents may be reproduced or transmitted in any form or by any means, electronic and mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing, except where by permitted by law.

EA ARCHITECTURE & DESIGN, INC.
802 N. CLINTON, SUITE 1 61701
BLOOMINGTON, ILLINOIS
PHONE: (309) 663-7111 FAX: (309) 663-7222
DESIGN FIRM #184.007110

WINDOW REPLACEMENT
342 COURT STREET
PEKIN, ILLINOIS 61554

DATE: 10/13/26
SCALE: AS NOTED
DRAWN BY: npe
JOB: 26-009
DOOR CONTROLS & HARDWARE
SHEET: A403
OF

10/13/2026 8:45:00 PM
Y:\2026 Projects\26-009 TC Courthouse Windows\TC Courthouse Windows.rvt

BID DOCUMENTS_10.13.26

WINDOW REPLACEMENT
TAZEWELL COUNTY
PEKIN, ILLINOIS

PROJECT MANUAL

13 October 2026

COPYRIGHT © 2026 BY EA Architecture & Design, Inc.
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the written permission of the author, except where permitted by law.

EA Architecture & Design, Inc.
802 N Clinton Street, Suite 1
Bloomington, Illinois 61701

PROJECT MANUAL FOR: Window Replacement

DATE: 13 October 2026

DIVISION	SECTION	TITLE	PAGES
00		PROCUREMENT AND CONTRACT REQUIREMENTS	
	00 0115	List of Drawing Sheets	00 0115-1-1
	00 1116	Invitation to Bid	00 1116-1
	00 2100	Instructions to Bidders	00 2100-1-5
	00 3101	Prevailing Wage Rates	00 3101-1
	00 4100	Bid Form	00 4100-1-3
01		GENERAL REQUIREMENTS	
	01 1000	Project Summary	01 1000-1-3
	01 3100	Project Coordination / General Provisions	01 3100-1-12
	01 3119	Project Meetings	01 3119-1-3
	01 5000	Temporary Facilities and Controls	01 5000-1-6
	01 6000	Product Requirements	01 6000-1-7
	01 7329	Cutting and Patching	01 7329-1-3
	01 7700	Closeout Procedures	01 7700-1-7
02		EXISTING CONDITIONS	
	02 4119	Selective Demolition for Remodeling	02 4119-1-6
03		CONCRETE	
04		MASONRY	
05		METALS	
06		WOOD, PLASTICS, AND COMPOSITES	
	06 1000	Rough Carpentry	06 1000-1-4
	06 1100	Wood Framing	06 1100-1-5
	06 4000	Architectural Woodwork	06 4000-1-8
07		THERMAL & MOISTURE PROTECTION	
	07 6200	Sheet Metal Flashing and Trim	07 6200-1-6
	07 9200	Joint Sealants	07 9200-1-11

DIVISION	SECTION	TITLE	PAGES
08		OPENINGS	
	08 4113	Aluminum Entrances & Storefronts	08 4113-1-10
	08 5113	Aluminum Windows	08 5113-1-12
	08 8000	Glazing	08 8000-1-12
09		FINISHES	
10		SPECIALTIES	
11		EQUIPMENT	
12		FURNISHINGS	
13		SPECIAL CONSTRUCTION	
14		CONVEYING EQUIPMENT	
21		FIRE SUPPRESSION	
22		PLUMBING	
23		HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)	
26		ELECTRICAL	
27		COMMUNICATIONS	
28		ELECTRONIC SAFETY AND SECURITY	
31		EARTHWORK	
32		EXTERIOR IMPROVEMENTS	
33		UTILITIES	

END TOC

Architectural

G101 TITLE SHEET

D101 DEMOLITION – ELEVATION
A101 FLOOR PLANS
A102 FLOOR PLANS
A200 EXISTING ELEVATIONS
A201 BUILDING ELEVATIONS
A401 WINDOW ELEVATIONS
A402 OPENING DETAILS
A403 DOOR CONTROLS

Plumbing / Mechanical / Electrical

NONE

All drawings are dated 13 October 2026.

END 00 0115

Owner:
Tazewell County
11 South 4th Street
Pekin, Illinois 61554

Construction Manager:
P.J. Hoerr
107 N Commerce Place
Peoria, Illinois 61604

Architect:
EA Architecture & Design Inc
802 N Clinton, Suite 1
Bloomington, Illinois 61701

Potential Bidders:

A. Bids may be emailed to Charlie Waibel at P.J. Hoerr, Inc. charlie@pjhoerr.com or hand delivered to the location below:
   Attn: Charlie Waibel
   P.J. Hoerr, Inc.
   107 N. Commerce Place
   Peoria, IL 61604

   Bids are due before 2:00 pm local time on **3rd of November 2026** for:
   Tazewell County Courthouse Window Replacement Project

B. Last Request for Information Due: October 27th, 2026
C. Mandatory Pre-Bid Meeting: October 22nd at 10:00 a.m. – Tazewell Co. Courthouse – 342 Court Street, Pekin, IL 61554
D. Desired Construction Start: Spring 2027
E. Bid Security / Bid Bond is not required.
F. Performance and Payment Bonds are not required.
G. Project Description: This Bid Package consists of the Window Replacement Package.
H. Submit your proposal on the Bid Form provided.
I. The Owner and Construction Manager reserve the right to reject any and all Bids, to waive informalities therein to determine the lowest and best bid. No bid may be withdrawn for a period of 60 days subsequent to the specified time for receipt of Bids.
J. This project is tax exempt.
K. This is a prevailing wage project. Certified payroll submissions are required with each pay application.
L. Bidders must follow the rules and regulations of the Fair Employment Practices Commission.
M. All Bidders are subject to and must comply with applicable state and federal anti-discrimination laws.
N. Bids will be privately opened.
O. All bidders shall abide by the Illinois Works Jobs Program Act Apprenticeship Initiative.
P. Bid Documents will be available through the P.J. Hoerr website Estimating pages or through the following link: on the Construct Connect SmartBid portal.

END 00 1116

1. GENERAL

1.1. SECTION INCLUDES

A. General Information
   1. Contract Time
   2. Bidding Guidelines

B. Bid Documents and Contract Documents
   1. Examination
   2. Inquiries / Addenda

C. Site Assessment
   1. Site Examination
   2. Prebid Conference

D. Bid Submission
   1. Submission Procedure
   2. Bid Ineligibility
   3. Bid Indemnification

E. Bid Enclosures/Requirements
   1. Security Deposit
   2. Insurance
   3. Bid Form Requirements
   4. Bid Form Signature
   5. Selection and Award of Alternates
   6. Owner's Tax Exemption Status
   7. Labor Rates

F. Offer Acceptance/Rejection
   1. Duration of Offer
   2. Acceptance of Offer

1.2. RELATED WORK

A. Specified Elsewhere:

   1. Section 00 1116 – Invitation to Bid
   2. Section 00 4100 – Bid Form
   3. Section 01 1100 – Project Summary

2. GENERAL INFORMATION

2.1. CONTRACT TIME

A. The responding bidder is to provide a milestone schedule for the proposed work.

2.2. BIDDING GUIDELINES

A. The submission of a Bid Proposal Form shall be deemed the Bidder's tacit acknowledgment and considered conclusive evidence that:

1. Each Bidder is responsible for reviewing and taking into consideration all Bid Documents, local regulations, and any other reasonably known items that may affect the cost of performing the work.
2. The Bidder has visited the site and is familiar with all conditions, including the nature, amount and location of the work, the general and local conditions, labor relations and all other matters which might in any way affect or have a bearing on the work or its costs.
3. The Bidder has taken into consideration expected weather conditions and the incorporation of contingencies in its bid to cover the normal delays associated with a project of the type for which the bid is being submitted.
4. The Bidder assumes ultimate responsibility for ensuring that they have obtained all Bid Documents and that they are complete.
5. The Bidder has reviewed the required Standard Subcontract agreement, insurance requirements, safety requirements and included any appropriate costs within their bid.
6. Extra compensation will not be awarded to Subcontractors for any of the above-mentioned items.
7. If a prospective Bidder discovers discrepancies, errors or omissions in the Bid Documents or is in doubt as to the true meaning of any part of the Contract Documents, Specifications or Drawings, the Bidder should immediately contact the Construction Manager, P.J. Hoerr Inc. for an interpretation.
8. Each Subcontractor shall comply fully with all laws, ordinances, rules, regulations, and orders of any public authority bearing having jurisdiction.

3. BID DOCUMENTS AND CONTRACT DOCUMENTS

3.1. EXAMINATION

A. Bid Documents will be available via SmartBid.

B. Immediately notify P.J. Hoerr Inc. upon finding discrepancies or omissions in the Bid Documents.

3.2. INQUIRIES / ADDENDA

A. Direct questions to Charlie Waibel, email: charlie@pjhoerr.com.

B. Addenda may be issued during the bidding period. All Addenda become part of Contract Documents. Include resultant costs in the Bid Amount.

C. Verbal answers are not binding on any party.

D. Clarifications requested by bidders must be in writing not less than 5 days before the date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients.

E. Interpretations, corrections or changes to the Bid Documents made in any manner, other than a written Addenda issued by the Architect, shall not be binding and Bidders shall not rely upon such interpretations, corrections or changes.

F. When a request to substitute a product is made, the Architect may approve the substitution and will issue an Addendum to known bidders.

G. The submission shall provide sufficient information to determine the acceptability of such products.

4. SITE ASSESSMENT

4.1. SITE EXAMINATION

A. Examine the project site before submitting a bid. Contact P.J. Hoerr Inc. to set up a site visit.

4.2. PREBID CONFERENCE

A. Mandatory Pre-Bid Meeting: October 22nd at 10:00 a.m. – Tazewell Co. Courthouse – 342 Court Street, Pekin, IL 61554

5. BID SUBMISSION

5.1. SUBMISSION PROCEDURE

A. Bids may be emailed to Charlie Waibel at P.J. Hoerr, Inc. charlie@pjhoerr.com or hand delivered to the location below:

Attn: Charlie Waibel
P.J. Hoerr, Inc.
107 Commerce Place
Peoria, IL 61604

B. Each bid must show the full legal name and business address for the Bidder, including its street address if it differs from the mailing address.

C. Each bid must be complete and free of ambiguity and signed by an individual authorized to bind the Bidder and if submitted in partnership or joint venture a list showing the full names and addresses of all partners or joint ventures must be provided.

D. All bids must be submitted in strict conformity with the documents contained in or referred to in the Bid Documents.

5.2. BID INELIGIBILITY

A. Bids that are unsigned, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of the Owner, be declared unacceptable.

B. Any bid received after the due date stated on the Invitation to Bid will be rejected.

C. IMPORTANT: The bid proposal form and associated forms referenced must be used when submitting a bid for this project. Failure to provide the proper documents may result in the Bidder's proposal being considered non-responsive.

5.3. BID INDEMNIFICATION

A. By submitting a bid proposal form, each bidder agrees to waive any claim it has or may have against the owner, the architect/engineer, and construction manager and their respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

6. BID ENCLOSURES / REQUIREMENTS

6.1. INSURANCE

A. Reference Bid Documents for the insurance requirements and sample certificate of insurance.

6.2. BID FORM REQUIREMENTS

A. Complete all requested information in the Bid Form and Appendices.
B. Including the Bid Form, the following documents must be completed in their entirety:

6.3. BID FORM SIGNATURE

A. The Bid Form shall be signed by the bidder, as follows:
   1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
   2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
   3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.
   4. Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

6.4. SELECTION AND AWARD OF ALTERNATES

A. The acceptance of the alternates in any order or combination based upon the cumulative total of base bid and bid alternates may determine the successful bidder.

B. Acceptance of Alternates is at the Sole Discretion of the Owner.

C. Each bid Alternate may be considered separately; the Bidder is not to rely on the acceptance of any Alternate bids.

D. if the Owner chooses to accept the Alternates, it will be done so after bids have been reviewed.

6.5. OWNER'S TAX EXEMPTION STATUS

A. the Owner of this project is a sales tax-exempt entity. Because of this, construction materials purchased for and used on this project are eligible for exemption from sales tax.

B. All bidders acknowledge and agree that their lump sum price does not include state sales and use taxes and that the proposed contract sum does not include sales taxes.

C. Do not submit bids with sales tax included.

7. OFFER ACCEPTANCE / REJECTION

7.1. DURATION OF OFFER

A. Bids shall remain open to acceptance and shall be irrevocable for a period of sixty (60) days after the bid's closing date.

7.2. ACCEPTANCE / REJECTION OF OFFER

A. The Construction Manager reserves the right to accept or reject any or all offers.

B. To determine the lowest responsible qualified proposal, the Construction Manager will evaluate proposals based on the following considerations.
   1. Total amount of Bidder's proposal, including Base Bid and Alternate Bids
   2. Acknowledgement of issued Addenda
   3. Bidder's bonding rate and capacity
   4. Sufficiency of Bidder's financial resources
   5. Evaluation of Bidder's labor rates
   6. Bidder's ability to perform in accordance with the drawings and specifications
   7. Bidder's ability to perform without delay or interference to other trades

8. Bidder's history of performance on previous contracts with Construction Manager or previous project for Owner
9. Evaluation of Bidder's safety record
10. Bidder's history of compliance with applicable laws, codes, and regulations
11. Quality and availability of Bidder's personnel and resources
12. Amount and nature of Bidder's current or pending litigation
13. The proposed milestone schedule

C. The bidder's bonding capacity and rate will be evaluated by the Construction Manager and Owner if requested. The cost of providing the Bidder's Performance and Payment Bonds may be added to the Base Bid to assist in evaluating the lowest responsible qualified bidder.

D. Bidder is advised that the Construction Manager may carry out an investigation of Bidder's financial condition. Such investigation may include a request for Bidder's most recent financial statements, a review of Bidder's "Business Information Report" as prepared by Dun & Bradstreet, Inc., or discussions with Bidder's surety and banking agents.

E. Bidders are required to provide a price for each specified Alternate, Unit Price, or Price Breakout that affects Bidder's Bid Package.

F. The Owner and Construction Manager shall keep the following rights and considerations:
1. To reject any or all bids and, in particular, a bid not accompanied by all the bid information required by the Bid Documents or a bid in any way incomplete or irregular.
2. To waive any informality or irregularity in any bid received.
3. To award all or any part of a bid as well as the right to let other contracts in connection with the work, including but not limited to, contracts for furnishing and installation of furniture, equipment, voice and data cabling, machines, appliances, and other apparatus.
4. To award, a contract, based on the bids received, without any further discussion of such bids.
5. To enter into negotiations with any Bidder.
6. To award individual contracts for the contract work on the basis of each separate Base Bid amount as itemized on the Bid Form, or to award a single contract to one Bidder on the basis of the combined Bid for all of the contract work.

END 00 2100

1. GENERAL

1.1. WORK INCLUDES

A. This contract calls for the construction of a “public work” within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01. The Act requires contractors and subcontractors to pay all laborers, workers, and mechanics performing services on public works projects no less than the “prevailing rate of wages” (hourly cash wages plus fringe benefits) in the county where the work is performed. Each contractor and subcontractor rendering services under this contract must comply with all requirements of this Act. Each contractor and subcontractor shall keep records of the prevailing wages paid to their employees, submit a monthly certified payroll to Tazewell County and make such records available to Tazewell County for inspection upon 7 business days’ notice.

For information regarding the current prevailing wage rates for Tazewell County, Illinois can be found at: http://www.illinois.gov/idol/laws-rules/conmed/pages/rates.aspx.

Prevailing wage rates change periodically. Contractor shall verify and revise the prevailing wages on a regular basis.

2. PRODUCTS

Not Used

3. EXECUTION

Not Used

END 00 3101

To: **PJ Hoerr, Inc.**
107 Commerce Place
Peoria IL 61604
Phone: (309)688-9567

Project: Tazewell County Courthouse Window Replacement Project
342 Court Street
Pekin, Illinois 61554

Construction Manager: P.J. Hoerr

Architect of Record: EA Architecture & Design, Inc.

Bidder Name _____

Address _____

Phone # _____

Contact _____

Email _____

This bid is based upon the bidding documents for this Project which consists of:

1. Specifications and Drawings issued dated October 13, 2026 via SmartBid.

2. Addenda as Follows:

Addendum No. ( ) _____ dated _____;
Addendum No. ( ) _____ dated _____;
Addendum No. ( ) _____ dated _____;

Work Package (#/Description): **WINDOW REPLACEMENT PROJECT**

Having examined the site and having familiarized itself with the conditions affecting the cost of the work and with the bidding documents, Bidder hereby proposes to perform everything required and to furnish all labor, materials, necessary tools, expendable equipment and transportation services necessary to complete in a workmanlike manner the work package stated above in accordance with the bidding documents for the following sum:

Base Bid: _____ Dollars

($_____)

TAXES: This project is tax exempt.

ALTERNATES

Alternate Bids: “Alternate Bid” means a fixed amount for all labor, material, overhead, profit, and all other costs of whatever nature and character for the item described. Alternate Bids may be used to determine the lowest responsible bidder and will not be considered in any particular order. Voluntary alternate bids may be provided at the discretion of the bidding contractor. Attach additional information if necessary to describe the alternate work.

1. Alternate Bid No. 1: Voluntary Alternate Opportunity

Description: _____

Add / Deduct:_____ Dollars ($_____)

UNIT PRICES

The below unit prices will be used as an Add or Deduct from the base bid where changes in the Work are requested. The unit prices will be included in the Contract with the successful bidder. Note that if a unit price below affects the bid package and you fail to complete the unit price, you will be required to complete the unit price Work without additional compensation.
N/A

ADDITIONAL INFORMATION

The following questions will be used for bid evaluation:

1. Provide a list of your Subcontractors who will be performing work under your bid package.

Subcontractor Name	Subcontractor Scope

ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for sixty (60) days from the Bid closing date.

If the Bid is accepted by the Design Team within the time period stated above Subcontractor agrees to:

a. Execute the Agreement within five (5) days of receipt.
b. Furnish the required Certificate of Insurance within ten (10) days of receipt of Agreement.
c. Commence work as directed by the Construction Management Team.
d. The Undersigned agrees to observe Owner's policies and all federal, state, and local rules, regulations, and statutes.

BID FORM SIGNATURES

Bidder: _____

Signature: _____ Date: _____

Printed Name: _____ Title: _____

Address: _____ City: _____ State: _____

Phone: _____ Email: _____

Attest By: _____

(SEAL)

END 00 4100

1. GENERAL

1.1. WORK INCLUDES

A. Work covered by contract documents:

The work of this project includes the replacement of all existing exterior windows and aluminum framed entrances. Limited electrical work to occur at aluminum entrances to reconnect wiring to installed door and security controls. There are existing materials that are to be removed that contain asbestos. See report.

1.2. DEFINITIONS. The following terms are used throughout the contract documents. The work will be governed in accord with the definitions.

A. Fabricated: "Fabricated" pertains to items specifically assembled or made of selected materials or components to meet individual design requirements.

B. Manufactured: "Manufactured" means standard units, usually mass produced by an established manufacturer of the respective item.

C. Provide: "Provide" means furnish and install.

D. Shop fabricated or shop made: "Shop fabricated or shop made" refers to items made by the Contractor in his own shop.

1.3. INSURANCE: See the Conditions of the Contract.

1.4. CONTRACT

A. Construct project under a single combined contract, as the General Contractor, in accordance with Supplementary Conditions, and including the following work:

1. General Work

1.5. CONTRACTOR USE OF PREMISES

A. Contractor to prepare and submit Site Logistics Plan for Architect and Owner approval prior to start of Work.

B. Confine operations at site to areas permitted by:

1. Law
2. Permits
3. Contract
4. Drawings
5. Owner's representative

a. Confer with Owner's representative and obtain full knowledge of all site rules and regulations affecting work.
b. Conform to site rules and regulations while engaged in project construction.
c. Site rules and regulations take precedence over others that may exist outside such jurisdiction.
d. Employee list: The Owner's representative may examine Contractor's list of employees, including those of his subcontractors and their agents.
e. Vehicle use: Rigidly enforce the following:

1) Keep all vehicles, mechanized or motorized equipment locked at all times when parked and unattended on the Owner's premises.
2) Parking: Permitted only in areas designated by Drawings.

C. Do not unreasonably encumber site with materials or equipment.

D. Do not load structures with weight that will endanger structure.

E. Assume full responsibility for protection and safekeeping of products stored on premises.

F. Move all stored products or equipment which interfere with operations of the Owner.

G. Obtain and pay for use of additional storage or work area needed for operations.

H. Use of Site: Confine operations at site to areas as designated by Contract Documents. Do not disturb portions of Project site beyond areas in which the Work is indicated.

I. Fire Protection:

1. Fires: Contractor shall prohibit the lighting of fires about the premises and use due diligence to see that refuse and such not be burned at the construction site. Promptly remove all refuse and such from the site for legal disposal. Prevent the accumulation of combustibles on the site or within the building.
2. Welding and cutting: It shall be the responsibility of each contractor to take precautionary measures to prevent fire.
3. Heaters: The heaters in Contractor's job offices shall be properly installed to protect combustible walls, floors, and roof. Salamander heaters or other types of open flame heaters shall not be used except with the special permission of Owner, and then only when such heaters are maintained under constant supervision.
4. Flammables: Gasoline and other fuels shall be kept and handled in accord with NFPA and in UL listed and labeled safety cans, and shall be stored away from hazardous work areas.

J. Smoking inside of the existing building, including those areas associated with the work of this contract, will not be permitted. Smoking on the premises outside of the building will also not be permitted. Construction personnel, with the permission of the Contractor, may smoke in the construction trailer, provided:

1. The Architect and the Owner have no objections.
2. Smoking is confined to the Contractor use areas only - not in the areas used and/or occupied by the Architect or the Owner's Representative.

1.6. HAZARDOUS MATERIALS

A. No asbestos containing materials, lead based paints, or other hazardous materials shall be furnished or installed in this work.

1.7. OWNER OCCUPANCY

A. Full Owner Occupancy: Owner will occupy site and existing and adjacent building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations.

1. Coordination: Coordinate operations that may result in high levels of noise and vibration, odors, utility outages, or other disruption to the Owner’s operations.

    a. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

2. Egress: Unless otherwise indicated, egress from all Owner occupied areas shall be maintained at all times.

END 01 1000

1. GENERAL

1.1. WORK INCLUDES

A. Construction mobilization.

B. Schedules.

C. Submittals.

D. Construction Manager duties.

E. Subcontractors' duties

F. Meetings.

G. Coordination.

H. Closeout procedures.

I. Testing.

J. General Provisions

1.2. DEFINITIONS

A. RFI: Request for Information: Request from Owner, Construction Manager, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.3. CONSTRUCTION MOBILIZATION

A. Cooperate with the Construction Manager in allocation of mobilization areas of site; for field offices and sheds, for site access, traffic, and parking facilities.

B. During construction, coordinate use of site and facilities through the Architect.

C. Comply with Architect and Construction Manager’s procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.

D. Comply with contract requirements for use of temporary utilities and construction facilities.

1.4. SCHEDULES

A. Submit preliminary progress schedule in accordance with Contract requirements.

B. After review, revise and resubmit schedule.

C. During progress of work, revise and resubmit schedule as indicated by the Architect.

1.5. SUBMITTALS

A. Make submittals in accordance with Contract requirements.

B. Submit shop drawings, product data and samples for review and compliance with contract documents, for field dimensions and clearances, for relation to available space, and for relation to work of separate contracts. Revise and resubmit as required.

C. Submit applications for payment on AIA G702 forms (or as otherwise accepted by the Owner) for review.

D. Submit Requests for Information (RFIs) of Contract Documents, and obtain same through Architect.

E. Process requests for substitutions, and change orders, through Owner.

F. Deliver closeout submittals for review and preliminary inspection reports.

1.6. CONSTRUCTION MANAGERS DUTIES

A. Coordinate work of all contractors.

B. Enforce predetermined on-site lines of authority and communication; conduct coordination meetings attended by:

1. Contractors and subcontractors.
2. Architect's Representative.
3. Owner's Representative

C. Construction schedules:

1. Develop and maintain project schedule.
2. Coordinate schedules of all subcontractors.
3. Monitor schedule as work progresses.

a. Identify potential variances between schedule and probable completion dates.
b. Report to Architect adjustments in schedule to meet approved completion date.
c. Provide summary reports of each monitoring.
d. Document all changes in schedule.

4. Observe work of all subcontractors to monitor compliance with project schedule.

a. Verify that each subcontractor's labor force and construction equipment are available and adequate for maintaining the project schedule.
b. Verify that product deliveries are adequate to maintain project schedule.
c. Report conditions which will adversely affect critical items on project schedule to Architect with recommendations for corrective action.

D. Temporary Utilities:

1. Allocate use and location of temporary offices and storage trailers.
2. Monitor use of temporary utilities.
3. Verify that adequate services are provided to comply with specifications for work and climatic conditions.
4. Verify proper maintenance and operation of temporary utilities.
5. Administer traffic and parking controls.

E. Payments:

1. Attend monthly pay meetings scheduled by Construction Manager and attended by:

a. Owner's Representatives
b. Contractor
c. Architect

2. Submit Contractor's application for payment including:

a. Request for Partial Payment.
b. Contractor’s Sworn Statement and Affidavit
c. Waivers of Lien.
d. Requests for Payment for Stored Materials.

F. Changes:

1. Recommend necessary or desirable changes to Architect.
2. Review subcontractor's requests for changes or substitutions; submit recommendations to Architect.
3. Enforce adherence to all modifications in contract documents.
4. Assist Architect in negotiating proposals for change with subcontractors.

G. Permits and Fees:

1. Obtain building permits and special permits for permanent improvements.
2. Obtain approvals from all authorities having jurisdiction. Schedule and be present for all inspections by governmental units and authorities having jurisdiction.
3. Verify that subcontractors have obtained permits for inspections and temporary facilities.
4. Verify that subcontractors have included utility company fees.

H. Inspection:

1. Inspect work to assure that work is performed in accord with Contract Documents.
2. Reject or stop portions of the work which are not in accord with Contract Documents.

I. Interpretations of Contract:

1. Consult with Architect to obtain interpretations.
2. Assist in resolution of questions which may arise.
3. Transmit written interpretations to the concerned parties.

J. Administer Coordination and Processing of:

1. Shop drawings, product data and samples.
2. Project record documents.

K. Maintain Reports and Records at Job Site:

1. Daily log of progress of work, available to Architect and Owner’s representative.
2. Records:

a. Contracts.
b. Purchases.
c. Materials and equipment records.
d. Specified handbooks, codes and standards.
e. Daily log of project manpower by craft, including equipment and activities.
f. Inspection reports.

3. Verify that contractors and subcontractors maintain project record documents on a current basis.
4. At completion of project, assemble project record documents in accordance with Contract requirements and deliver to Architect.
5. Assemble documentation for handling of claims and disputes.

L. Verify that specified cleaning is done:

1. During progress of work.
2. At completion of contract.

M. Notification of start-up of permanent mechanical and electrical equipment:

1. Notify all parties seven (7) days prior to start-up date.
2. Record dates of start of operation of systems and equipment.

N. Substantial Completion:

1. Upon Contractor’s determination of substantial completion of work or a portion thereof, prepare for Architect a list of incomplete or unsatisfactory items.
2. Upon Architect's certification of date of substantial completion, coordinate correction and completion of work.

O. Final Completion:

1. Upon subcontractor's determination that work is finally complete:

a. Submit written notice to Architect that work is ready for final acceptance.
b. Secure and transmit to Architect specified closeout submittals.

2. Turn over to Architect:

a. Operations and maintenance data.
b. Spare parts and maintenance materials.

1.7. SUBCONTRACTORS' DUTIES

A. Coordinate work of employees and subcontractors under the Contract.

B. Conduct work to assure compliance with schedules.

C. Transmit written instructions to concerned suppliers, subcontractors.

D. Transmit all submittals and notices to Contractor, Architect and the Owner in accordance with the contract documents.

E. Under the administration of the Contractor, coordinate work with that of other contractors.

F. Cooperate with Contractor.

1.8. PRELIMINARY COORDINATION MEETING

A. A preliminary coordination meeting will be held at a time and place designated by the Architect for the purpose of identifying responsibilities of the Owner's and the Architect's personnel, and for explanation of administrative procedures.

B. The Contractor shall also use this meeting for the following minimum agenda:

1. Construction schedule.
2. Use of areas of the site.
3. Delivery and storage.
4. Safety.
5. Security.
6. Cleaning up.
7. Subcontractor procedures relating to:

    a. Submittals.
    b. Change orders.
    c. Applications for payment.
    d. Record documents.

C. Attendees shall include:

1. The Owner.
2. The Architect, and its consultants.
3. The Contractor and its superintendent.
4. Major subcontractors, suppliers, and fabricators.
5. Others interested in the work.

1.9. COORDINATION

A. Perform all work between the hours of 7:00 AM and 5:00 PM Monday through Friday, unless other arrangements are made with the Owner.

B. The Contractor is responsible for all security with regard to the construction. The Contractor shall cooperate completely with the Owner's security forces and measures.

C. Where necessary, in writing, inform each party involved of special procedures required for coordination; describe required notices, reports and attendance at meetings.

1. Inform the Owner when coordination of his work and activities is required.

D. See other requirements in other portions of the Contract Documents.

E. Coordination drawings:

1. Each Contractor shall prepare coordination drawings as required:

    a. To coordinate installation of products fabricated off-site by separate entities.
    b. Where limited space available may cause conflicts in the locations of installed products.
    c. To coordinate the work of other Contractors/trades.
2. Where space is limited, show plan and cross-section dimensions of space available, including structural obstructions and ceilings as applicable.
3. Where drawings are to provide coordination between shop drawings prepared by separate entities, show specific interrelationship between components shown on separate drawings.
4. Show installation sequences when necessary for proper installation.

1.10. CLOSEOUT PROCEDURES

A. Closeout project as noted in Contract requirements.

B. Notify Architect when Work is considered ready for Substantial Completion. Accompany Architect on preliminary review to determine items to be listed for completion or correction in Contractor's notice of Substantial Completion.

1. Substantial Completion will not be granted until, among other things, all inspections by authorities having jurisdiction are complete and fully accepted.

C. Comply with Contract requirements to correct items of work listed in executed Certificates of Substantial Completion.

D. Notify Architect when Work is considered finally complete. Accompany Architect for final acceptance.

E. Comply with Contract requirements for completion of items of Work determined as necessary for final acceptance.

1.11. TESTING

A. Testing shall be in accordance with Contract requirements.

B. Notify Architect of test schedules.

C. Verify that required personnel are present.

D. Verify that specified tests are made as scheduled.

2. General Provisions

A. General Provisions apply to ALL Contract Scopes of Work. The following conditions are hereby incorporated into each and every Contract Scope of Work.

B. Each Contract Scope of Work includes furnishing any and all materials, equipment and labor necessary, inherent or incidental to fulfill the requirements summarized below and in accordance with the Drawings, Specifications, project schedule, and other Bid Documents made a part of this Contract Scope of Work.

C. The responsibilities of each Subcontractor are intended to coincide with the other Contract Scope of Works to provide a complete and total project. It is the responsibility of each Subcontractor to become familiar with all Contract Scope of Works and all Construction Documents included in the project and identify any discrepancies or misunderstandings that may exist.

D. It is the responsibility of all bidders to make sure they have reviewed all project documents, including but not limited to front end specifications, any spec sections that may impact their scope of work and all contract drawings. Each Subcontractor shall become familiar with the Information Available to Bidders as well as any other information provided for the preparation of their bid.

E. Each subcontractor shall coordinate the work of their Bid Package with the work of other Bid Packages so that all work is completed in accordance with the Bid Documents and schedule is maintained. Rework that is required due to insufficient coordination with other subcontractors will be performed at the subcontractor’s cost.

F. Each Subcontractor must direct all correspondence to the Construction Manager for distribution to others.

G. Each Subcontractor shall comply fully with all laws, ordinances, rules, regulations and orders of any public authority bearing having jurisdiction on the project.

H. All work shall be performed in accordance with Federal, State and Local code requirements to the best of current practices and to qualify work acceptable to the Owner, Architect and Construction Manager. In the event that any discrepancies and/or errors are found in the drawings or specifications, this subcontractor shall be required to notify the Construction Manager before proceeding with the work and shall be deemed to have estimated a high-quality way of doing the work.

I. Subcontractors shall familiarize themselves with all local, state, etc. Building Codes and regulations and notify the Construction Manager of any discrepancies or deficiencies in the documents prior to submitting a bid. Should the Subcontractor fail to do so, they will be responsible for providing the more stringent installation at no additional cost to the Owner or Construction Manager.

J. Each Contract Scope of Work shall include all trade labor jurisdictionally required to complete the scope of work. If multiple trades are required, it is the responsibility of this package to procure and manage all jurisdictionally required manpower.

K. The subcontractor will be responsible for printing all Construction Documents upon award of project.

L. The subcontractor shall provide all permits, coordinate testing and permit inspections, and pay for all permit fees associated with their Contract Scope of Work. The Owner and/or Construction Manager will pay water usage and power consumption fees.

M. The Architect/ Owner and his representatives shall at all times have access to the work whenever it is in preparation or progress and this Subcontractor shall provide proper and safe facilities for such access and inspection.

N. Subcontractor to provide access for and assist in coordination of all contracted testing agencies for the testing that will be required for the activities in each respective Contract Scope of Work. All coordination must be through the Construction Manager.

O. All remedial work associated with bad test results, incorrect layout, and incorrect fabrication shall be the responsibility of the Subcontractor, including cost for retesting. Remedial work shall be completed within 48 hours of notification, or the Construction Manager may complete the work by deducting the cost from the remaining contract amount.

P. The Owner shall have first right of refusal for the salvage and scrap of any existing material or equipment within or attached to the existing building. Subcontractors shall cooperate with the Owner in removing this material, and shall review, understand, and use caution around all items marked for salvage or removal. This right shall extend until the commencement of demolition.

Q. Each Subcontractor shall furnish the insurance required by the project documents.

R. Upon request of the Owner, the Subcontractor will at his own expense, by bonding or otherwise, secure the prompt discharge of any liens which may be filed against the property arising out of this contract.

S. Subcontractor must provide a supervisor on site who has the authority to control all aspects of Subcontractor’s work. Supervisor shall have the authority to receive and act upon directions given to Subcontractor by Construction Manager. Supervisor will have authority to control all aspects of Subcontractor’s work, including crew size, scheduling,

troubleshooting, quality assurance, coordination with Construction Manager and other trades, and punch list. The Supervisor must be available by mobile phone during working hours and provide a 24-hour emergency number.

T. Subcontractors must provide their field personnel with adequate drawings, specifications, and instruction as required to undertake and complete the work in an efficient and timely manner. Subcontractor's personnel who arrive at the jobsite without adequate information and instructions may be sent back and Subcontractor will be responsible for the cost of any delays incurred per the terms and conditions of the Contract. The subcontractor shall be fully responsible for the acts or failures to act, and omissions of the Subcontractor's own employees, sub-subcontractors, and vendors.

U. The Contractor shall submit a Daily Manpower Report in a prescribed form, to the Construction Manager/ Superintendent. This report shall include a brief description of the Contractor's activities for the day, as well as a manpower count for both the Contractor and any Sub-subcontractors.

V. All subcontractors are required to attend weekly job progress and coordination meetings with the Construction Manager's representatives. These meetings must be attended by a decision-making authority of the Subcontractor. If this person is not the superintendent/foreman, then someone with decision making ability must also attend for coordination/communication purposes. If a subcontractor fails to attend the weekly meeting, they will waive all rights for future claims on items discussed and agreed to in the meeting.

W. Subcontractors will be required to attend Pre-Activity and or Quality Control meetings prior to and/or throughout the installation of their work.

X. Subcontractors shall commence progress and complete their contract work in accordance with the project schedule. The Subcontractor agrees that the contract work shall be executed diligently and without interruption at such a rate of progress as will ensure full completion thereof in accordance with the project schedule. Subcontractor acknowledges and agrees that the time identified in the schedule for completion of the contract work as described herein is a reasonable time period for the completion of same, taking into consideration any unusual construction considerations prevailing in the locality of the project site(s).

Y. The Subcontractor may deem it necessary to work an extended shift, more than one shift or more than one extended shift to meet the project schedule. All costs associated with work performed outside normal working hours shall be at the sole expense of the Subcontractor unless shift work has been directed and authorized in writing by the Construction Manager.

Z. The subcontractor shall make accommodations for work to occur in multiple phases and/or mobilizations as identified in the documents and include any demobilization and/or remobilization expenses in their proposal.

AA. Each Subcontractor is responsible for creating the Project Schedule for the timing of delivery of equipment and materials to the jobsite. This includes accounting for material escalation costs associated with material to be installed as well as potential labor rate increases. If equipment or materials are pre-purchased and stored, Subcontractors may bill for stored materials if they provide sufficient documentation (i.e. pictures, affidavits, etc.…) that the equipment or material is in fact for this project as is allowed by the Owner Contract.

BB. The subcontractor shall furnish shop drawings, submittals, samples and mockups as required by the specifications and project schedule.

CC. The glazing contractor shall exclude the removal of existing windows and doors from their base bid; all work shall be coordinated between the abatement contractor and the glazing contractor to ensure proper sequencing and compliance with the project specifications and drawings.

DD. Glazing contractor will be required to provide their own dumpster to support the installation of the window and door systems.

EE. This Subcontractor is responsible for providing his own DAILY clean up to Construction Manager's satisfaction in order to allow safe passage through the jobsite, public protection, and efficient progression of project schedule. This Subcontractor will be required to collect and remove their own construction debris and place it in dumpsters provided by this Subcontractor.

FF. In the event the Subcontractor fails to clean up in accordance with the directions, the Construction Manager, after twenty-four (24) hours written notice to the Subcontractor, reserves the right to arrange otherwise for the clean up to be performed at the expense of the Subcontractor. In the event a dispute arises among the Subcontractor and any others as to the responsibility for clean-up, the Construction Manager may cause the clean up to be performed and allocate the costs among the parties responsible for keeping the premises and surrounding area free of accumulation of waste or rubbish. The allocation made by the Construction Manager shall be binding on the Subcontractor.

GG. This Subcontractor will provide temporary toilets.

HH. All deliveries must include costs for shipping as well as the required manpower and equipment to receive, unload and store the shipment. All deliveries must be coordinated with the Construction Manager. If these procedures are not strictly adhered to, the Construction Manager may refuse delivery at the sender's expense. Delivery times or restrictions will be reviewed at Subcontractor Pre- Activity Meeting and may be amended as necessary by the Project Superintendent.

II. Each Subcontractor is required to provide traffic control as required by the Construction Manager and local authorities while delivering, unloading or placing work.

JJ. The Construction Manager will direct where all material storage and lay down areas will be located. All materials shall be neatly stockpiled in these locations ONLY. If stored materials and equipment obstructs the progress of any portion of the work, they shall be removed or relocated by the respective Subcontractor as may be directed by the Construction Manager, without reimbursement of cost. Material/equipment storage is the responsibility of the Subcontractor. The subcontractor is responsible and liable for all materials and equipment stored on site.

KK. Subcontractors required to install materials furnished by others shall receive, inspect, unload, store and inventory such materials. The subcontractor shall verify that materials supplied by others are delivered in a new condition, undamaged and shall bear responsibility upon acceptance of such materials. The subcontractor shall notify the Construction Manager of any inadequacy of the delivered materials within 24 hours of receiving the delivery.

LL. Each Subcontractor must use caution while working around existing and new finishes and must also provide adequate protection to avoid property damage. All temporary protection measures are to be installed, maintained and removed by the Subcontractor performing the work requiring the protective measure.

MM. All construction traffic must utilize access to the site as directed by the Construction Manager.

NN. Temporary temperature and/or humidification control will be provided by this Subcontractor for the necessary interior finish activities inside the building as necessary.

OO. This Subcontractor is responsible for supplying temporary generator power required to complete their scope of work until permanent/temporary power is connected.

PP. All temporary extension cords required shall be the responsibility of each Subcontractor. Extension cords to be a minimum of 12 gauge and shall include GFCI at the electrical outlet or shall be removed at the Construction Manager's discretion if found non-compliant.

QQ. All work on this site is to be performed safely in accordance with all Occupational Safety and Health Administration (OSHA) standards and the Construction Manager's (P.J. Hoerr, Inc.) published safety program. It is the responsibility of the Subcontractor to inform and educate all personnel working on site of the aforementioned requirements and ensure that these policies are enforced each day.

RR. Each Subcontractor will be required to make provisions for the safety of their own work and must make provisions to protect others from the hazard (i.e. ladders, safety rails, floor opening covers, fall protection, drinking water, traffic control, signage, etc.).

SS. In addition to OSHA standards, Subcontractors shall adhere to all Construction Manager safety requirements. Hardhats, safety glasses and high visibility clothing will be required at all times. Subcontractors shall adhere to the Construction Manager's 6' fall protection rule at all times.

TT. All Subcontractor employees will be required to attend Construction Manager's Safety Orientation prior to commencing work.

UU. Prior to working at the site, all Subcontractor employees must be trained in MSDS/HAZCOM policies and procedures. MSDS/HAZCOM information is to be supplied to the Construction Manager/Superintendent prior to delivery of material on site.

VV. All reinforcing steel or other protruding hazards left exposed must be capped or otherwise protected according to OSHA. When a subsequent trade works near this area, they must maintain this protection and supply additional caps as needed to protect their employees.

WW. The use or possession of intoxicating beverages, drugs, unauthorized firearms, or other weapons on the job is forbidden. Employees under the influence of alcohol or drugs are not permitted on the job. The Construction Manager reserves the right to remove anyone from the site for violations of the project safety program.

XX. All Subcontractors performing any excavation, backfill or similar activity must be familiar with the Geotechnical Report and include requirements stated in that report in their pricing.

YY. Prior to any excavation, the Subcontractor shall call to have utility location performed, reference Contract Documents for responsible agencies.

ZZ. All Subcontractors shall locate, protect, temporarily support and excavate around existing underground utilities, if any, which are scheduled to remain in service for the duration of the project.

AAA. Prior to any interior floor penetrations or exterior ground excavations, Subcontractors should utilize GPR to locate existing utilities.

BBB. Every effort must be made to close up all excavations on the same day they are started; however, if an open excavation cannot be backfilled on the same day the responsible Subcontractor shall protect the general public by utilizing safety barricades as outlined in OSHA standards and the P.J. Hoerr safety program; including but not limited to, perimeter snow fence, covering the opening, etc. This protection must be maintained throughout the excavation and backfill period and in place at the end of each working day.

CCC. Each Subcontractor will be required to caulk/joint seal own work unless noted otherwise. If caulking is scheduled to be installed between multiple Subcontractors' work, then the last trade to install their product will be required to provide the caulking/joint sealant unless warranty of that item would dictate otherwise.

DDD. Penetration fireproofing and fire-safing or other rated caulking shall be performed by the Subcontractor whose work penetrates the partition, unless noted otherwise. Additionally, any damaged fire-rated assemblies that are related to or fall within a Subcontractor's jurisdiction or scope of work shall be repaired to their original specification.

EEE. Each Subcontractor must provide the necessary manpower to monitor, protect, and adjust their work items placed in concrete, masonry, masonry grouting, etc. to ensure alignment of finished product.

FFF. Each Subcontractor will be required to provide their own sleeves, core drill, or otherwise make their own penetrations and seal opening for own work through walls, floors, and ceilings.

GGG. Hauling of material across the roof will not be permitted unless plywood is used to protect the roof. At locations where masonry walls or other work is scheduled immediately above the finished roof system, the installing Subcontractor will be required to place plywood down in their work area in order to protect the roof from materials and heavy foot traffic.

HHH. All scaffolding and/or lifts that are required by this Subcontractor shall be the responsibility of this Subcontractor. Scaffolding and/or lifts must be appropriately cleaned and have appropriate tires to be allowed on existing and/or new floor slabs. Each Subcontractor is responsible for protecting the floor where scaffolding and/or lifts will be utilized by this Subcontractor. Scaffolds are to be erected by a certified scaffold erector. All scaffolding and equipment tags must be up-to date.

III. All Subcontractors are required to remove labels, stickers, temporary packaging, manufacturer info, etc. from all materials prior to the start of the final cleaning phase.

JJJ. All operation and maintenance manuals and warranty information shall be submitted in an organized format to the Construction Manager at the time that the Subcontractor is requesting payment for fifty (50) percent or more of their subcontract sum. No additional payments will be issued until the necessary items are received by the Construction Manager.

KKK. Subcontractor's Work shall be free of all defects in material or workmanship, and Subcontractor agrees to replace or repair, at Subcontractor's sole expense, any Work in which any defects appear within one year from the date of Owner's final acceptance by of Contractor's work on the Project. If Owner; or Contractor identify any defective or deficient Work, Subcontractor shall immediately repair, or remove and replace, such Work. The subcontractor shall pay all costs of such repair or replacement, including all removal of the defective Work, and all transportation, shipping and taxes related to replacement material or equipment. Subcontractor shall also repair all other work damaged by Subcontractor's warranty work.

LLL. Subcontractor agrees to provide all required move-ins necessary to complete Scope of Work.

MMM. Each subcontractor must provide daily work tickets for approval by the Construction Manager's on-site superintendent for any authorized extra work. Failure to provide such tickets will result in the subcontractor performing such work for no additional cost. Hours and/or funds not used will be credited back to the Owner.

NNN. Allowable Mark-Up for Extra Work. Subcontractor shall be allowed to place percentages of mark-up for overhead and profit for extra work it performs in accordance with the following table:

Type of Cost	% Mark-Up
Labor	15 %
Material	10 %
Equipment	10 %
Subcontractor(s)	5 %

OOO. Unit rates, if requested as part of the Work Package, shall be limited to and include these percentages of mark-up.

PPP. Subcontractor's Work shall be free of all defects in material or workmanship, and Subcontractor agrees to replace or repair, at Subcontractor's sole expense, any Work in which any defects appear within one year from the date of Owner's final acceptance of Contractor's work on the Project. If Owner or Contractor identify any defective or deficient Work, Subcontractor shall immediately repair, or remove and replace, such work. Subcontractor shall pay all costs of such repair or replacement, including all removal of the defective Work, and all transportation, shipping, and taxes related to replacement material or equipment. Subcontractor shall also repair all other work damaged by Subcontractor's warranty work.

QQQ. Each Subcontractor shall be responsible for parking in designated contractor areas.

RRR. It is understood by all bidders that there is not a "General Contractor" overseeing the work of this project. As such each and every subcontractor shall coordinate with each other to ensure all building systems are coordinated properly.

SSS. Each subcontractor is responsible for the complete contents of the general notes for this project as shown on the bid documents.

TTT. Background checks will likely be required by the County.

3. PRODUCTS

Not Used.

4. EXECUTION

Not Used.

END 01 3100

1. GENERAL

1.1. WORK INCLUDES

A. Contractor requirements:
   1. Attend specified meetings.
   2. Ensure attendance of subcontractors and suppliers when required or directed.

1.2. RELATED WORK

A. Specified Elsewhere:
   1. Section 01 1000 – Project Summary
   2. Section 01 3300 – Submittal Procedures
   3. Section 01 7700 – Closeout Procedures

1.3. PRECONSTRUCTION MEETING

A. Before starting construction, the Construction Manager will schedule and conduct a Preconstruction Meeting. Architect will:
   1. Prepare agenda.
   2. Distribute written notice and agenda of meeting a minimum of five business days in advance of meeting date.
   3. Make physical arrangements for meeting.
   4. Record minutes; include significant proceedings and decisions.
   5. Distribute copies of minutes to participants within five business days after meeting.

B. Attendance:
   1. Owner's representative
   2. Architect and its consultants
   3. Contractor and subcontractors

C. Minimum agenda:
   1. Key personnel / duties
   2. Contract amount / scope
   3. Chain of authority and communications
   4. General requirements
      a. Certificate of Insurance
      b. Performance and Payment Bonds
      c. Notice to Proceed
   5. Construction schedule
   6. Work hours and timelines
   7. Temporary facilities and controls
   8. No smoking policy
   9. Payment procedures and regulations
      a. Schedule of values
      b. Application for payment
      c. Lien waivers
      d. Retainage
      e. Stored materials
   10. Employee requirements
      a. Equal Employment Opportunity
      b. Prevailing wages
      c. Certified payroll
   11. Submittals
      a. List of subcontractors and suppliers

b. Shop drawings, product data and samples
c. Material Safety Data Sheets (MSDS)
d. Product substitutions

12. Change orders
13. Record documents
14. Distribution of documents
15. Project meetings
    a. Payment/progress meetings
    b. Coordination meetings

16. Questions

1.4. PAYMENT/PROGRESS MEETINGS

A. The Construction Manager will schedule and conduct monthly payment and progress meetings. Construction Manager will:
1. Prepare agenda.
2. Distribute written notice and agenda of regular and called meetings five business days in advance of meeting date.
3. Make physical arrangements for meetings.
4. Record minutes; include significant proceedings and decisions.
5. Distribute copies of minutes to participants within five business days after meetings.

B. Architect will ascertain that work is expedited consistent with construction schedule and Contract Documents.

C. Regular meeting dates, times and locations will be established at Pre-Construction Meeting.

D. Attendance:
1. Owner's Representatives
2. Architect and its consultants
3. Contractor and subcontractors

E. Minimum agenda:
1. Review and approve minutes of previous meeting.
2. Review work progress for the last period
3. Review anticipated work progress for the next period
4. Review construction issues:
    a. Field observations, problems and decisions
    b. Requests for Information
    c. Requests for Proposal
    d. Change Orders

5. Review status of submittals
6. Review of progress cleaning
7. Update project schedule (an approved updated Project Schedule is required prior to approval of application for payment)
8. Update record documents (approved updated Record Documents are required prior to approval of application for payment)
9. Listen to owner concerns
10. Review application for payment
11. Identify other business
12. Identify upcoming meetings:

    a. Coordination meeting
    b. Payment/Progress meeting

1.5. PROGRESS MEETINGS

A. The General Contractor will schedule and conduct progress meetings. Meetings will be scheduled as needed in accordance with prior agreement with Architect. Contractor will:
   1. Prepare agenda
   2. Distribute written notice and agenda of meeting five (5) business days in advance of meeting date
   3. Make physical arrangements for meetings
   4. Preside at meetings
   5. Record minutes; include significant proceedings and decisions
   6. Distribute copies of minutes of meetings to participants and Owner within five (5) business days after meetings

B. Attendance:
   1. Architect
   2. General Contractor
   3. Other Contractors
   4. Subcontractors and suppliers as pertinent to agenda

C. Minimum agenda:
   1. Review and approve minutes of previous meeting
   2. Review work progress for the last period
   3. Review anticipated work progress for the next period
   4. Review construction issues:
      a. Field observations, problems and decisions
      b. Problems which impede planned progress
      c. Requests for Information
      d. Requests for Proposal
      e. Change Orders
   5. Review changes proposed by Owner for:
      a. Effect on construction schedule
      b. Effect on completion date
   6. Review construction schedule; develop corrective measures and procedures to regain planned schedule
   7. Review of quality control procedures and recent test results.
   8. Update project record documents
   9. Review submittal schedules, expediting submittals as required to maintain schedule
   10. Identify other business

END 01 3119

1. GENERAL

1.1. INFORMATIONAL SUBMITTALS

A. The following submittals are to be submitted for information only.

1. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate.

2. Substrate Moisture Plan: For each installed substrate receiving finishes requiring a specific substrate moisture level, submit a narrative and schedule indicating measures that will be taken to ensure suitability of the substrates.

1.2. QUALITY ASSURANCE

A. Codes and Regulations: Comply with Federal, State, and Local regulations, and with utility company requirements.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

C. Accessible Temporary Egress: Comply with applicable provisions of the Americans with Disabilities Act (ADA) and the Illinois Accessibility Code.

2. PRODUCTS (NOT USED)

3. EXECUTION

3.1. INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

1. Comply with Federal, State, and local regulations.
2. Install work in neat and orderly manner.
3. Make structurally, mechanically and electrically sound throughout.
4. Maintain to give safe, continuous service, and to provide safe working conditions.
5. Provide each facility ready for use when needed to avoid delay.
6. Modify and extend systems as work progress requires.

B. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2. USE OF OWNER'S PERMANENT AND EXISTING SYSTEMS FOR CONSTRUCTION

A. General: Where Owner’s systems are indicated to be used for temporary purposes, the following items apply:

1. Do not overload system. When project requirements exceed system capacity, provide separate system to meet needs.
2. Connection, disconnection, and use of systems shall not disturb Owner’s operations.

3. Modify, supplement, and extend system to meet temporary utility requirements for project.
4. Maintain all components used for temporary systems, including lamps and ballasts.
5. Maintain strict supervision of use of temporary facilities.
6. Enforce conformance with Owner's regulations and all applicable codes and standards.
7. Use only designated facilities, systems or portions thereof.
8. Replace all components damaged by Contractor's use.
9. Ventilating: Provide temporary filters in ducts and furnace units. Replace with new filters immediately prior to final project acceptance. See “Protection of Installed Work” in this Section.

B. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

3.3. TEMPORARY UTILITY INSTALLATION - GENERAL

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.

1. Connect temporary sewers as directed by authorities having jurisdiction.

C. Sanitary Facilities:

1. Temporary Sanitary Facilities: Provide an adequate quantity of temporary toilets and handwashing facilities for all workers and authorized parties throughout construction period. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities. Clean and service as often as necessary to prevent accumulation of wastes, and creation of unsanitary conditions.

3.4. TEMPORARY ELECTRICITY

A. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use. Provide connections and extensions of services as required for construction operations. Maintain equipment in a condition acceptable to Owner.

B. Provide secondary power centers as needed and provide circuit protection for each circuit.

C. Provide service connections required for:

1. Temporary lighting.
2. Temporary heating and ventilating.
3. Testing and checking permanent mechanical and electrical equipment.

D. Contractors or subcontractors who require primary power, secondary power centers or service connections in excess of that specified: Make arrangements with the responsible Contractor and pay all costs thereof.

3.5. SUPPORT FACILITIES INSTALLATION

A. General: Provide traffic directional signage, barricades and other traffic control measures per approved Site Logistics Plan.

B. Temporary Roads and Paved Areas: As needed, construct and maintain temporary roads and paved areas adequate for construction operations. Contractor is responsible for the costs to provide and/or remove temporary roads/paved areas to allow the continuation of project progress. Locate temporary roads and paved areas within construction limits indicated on Drawings.

1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.

C. Temporary Use of Existing and Permanent Roads and Paved Areas: Where existing and permanent roads and paved areas are used for construction, they shall be cleaned and repaired as required to return to condition prior to construction. The final appearance and condition shall be acceptable to the Architect.

D. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

E. Parking and Material Staging: Utilize contractor parking and staging areas indicated on Drawings or arrange for temporary surface parking/staging areas to accommodate construction personnel and materials._Contractor parking and material staging shall not encumber the site.

F. Project Signs: Provide Project signs as indicated.

1. Temporary Signs: Provide other signs as indicated and as required for safety and to inform public and individuals seeking entrance to Project site.
2. Maintain and touchup signs so they are legible at all times.
3. No other signs are allowed without Owner permission except as otherwise required by law.

G. Waste Disposal Facilities: Comply with requirements specified in specification for Construction Waste Management.

H. Existing Elevator Usage: Existing elevators may be utilized by the Contractor, provide elevators are cleaned and maintained in a condition acceptable to the Owner.

1. Loading of elevator shall be limited to 90% of the rated elevator capacity.
2. Provide protective coverings, barriers, devices, signs, or other procedures to protect elevator car and entrance doors and frame. If, despite such protection, elevators become damaged, engage licensed elevator service personnel to restore damaged work so no evidence remains of correction work or provide new units as required.
3. Elevator use by the Owner shall be maintained at all times.

I. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial project use.

1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.

3.6. PROTECTION FACILITIES INSTALLATION

A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to State and local regulations and as indicated elsewhere in the Contract Documents.

C. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

1. Provide and comply with SWPPP (Storm Water Pollution Prevention Plan) requirements where required.

D. Tree and Plant Protection: Install and maintain temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Equipment and materials may not be placed within the temporary vegetation protection areas. Protect tree root systems from damage, flooding, and erosion.

E. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.

F. Building Contents Protection: Provide all necessary protective means to insure that equipment and furnishings in the building are not stolen, damaged, or soiled by construction operations. Cooperate with the Owner regarding the removal, relocation and/or protection of all fixtures, furnishings, finishes, and equipment.

G. Egress: Maintain egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

3.7. PROTECTION OF INSTALLED WORK

A. General:

1. Provide temporary and removable protection for installed products. Control activity in immediate work area to minimize damage.
2. Provide protective coverings at wall, projections, jambs, sills, and soffits of openings.
3. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
4. Protect air-handling equipment.
5. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

3.8. PROGRESS CLEANING

A. Maintain all construction areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition at all times.

B. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

C. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

D. Remove waste materials, debris, and rubbish from site and dispose legally off-site.

E. Maintain streets and sidewalks around the Project site in a clean condition. Remove all spillage and tracking arising from the performance of the Work from such areas. Establish a regular maintenance program of sweeping and hosing to minimize accumulation of dirt and dust upon such areas at least daily.

3.9. OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
2. Prevent water-filled piping from freezing.
3. Maintain markers for underground lines. Protect lines from damage during excavation operations.

END 01 5000

1. GENERAL

1.1. WORK INCLUDES

A. Specified materials and equipment.

B. Transportation and delivery.

C. Equipment and personnel at site.

D. Storage for materials and equipment to be installed in Project.

E. Protection and security for stored materials and equipment, on and off site.

F. Substitutions and Product options

1. Base all bids on providing all products exactly as specified.
2. For products specified only by reference or performance standards, select any product which meets or exceeds standards, by any manufacturer, subject to the Architect's acceptance.
3. For products specified by naming several products or manufacturers, select any product and manufacturer named.

1.2. MANUFACTURER'S INSTRUCTIONS

A. When Contract Documents specify that installation shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to all parties involved in the installation, including four copies to the Architect.

B. Maintain one set of complete instructions at the jobsite during installation and until completion, then file with the Project Record Documents.

1.3. OFF-SITE STORAGE AUTHORIZATION

A. Off-site storage will be permitted only with Owner's prior written authorization in accordance with the conditions of the contract.

1.4. SUBMITTALS

A. In accordance with Section 01 3300, submit:

1. Request for allocation of storage space.
2. List of materials and equipment to be stored.
3. Proposed location for storage.
4. Special storage requirements.
5. Schedule of anticipated storage dates.

1.5. SUBSTITUTIONS, BIDDER/CONTRACTOR OPTIONS

A. Prior to Bid Opening: The Architect will consider written requests to amend the bidding documents to add products not specified provided such requests are received at least ten calendar days prior to bid opening date. Requests received after that time will not be considered. If a request is approved, the Architect will issue an appropriate addendum.

B. After Award of Contract: No substitutions will be considered after Notice of Award except under one or more of the following conditions:

1. Substitutions required for compliance with final interpretations of code requirements or insurance regulations.
2. Unavailability of specified products, through no fault of Contractor.
3. Subsequent information discloses inability of specified product to perform properly or to fit in designated space.
4. Manufacturer/Fabricator refusal to certify or guarantee performance of specified product as required.
5. When a substitution would be substantially in the Owner's best interest.

1.6. SUBSTITUTION REQUIREMENTS

A. Complete Substitution Request Form included in this section.

B. Submit not less than four copies of each request for substitution. Include in request:

1. Complete data substantiating compliance of proposed substitution with Contract Documents.
2. For Products:

a. Product identification, including manufacturer's name and address.
b. Manufacturer's literature.

1) Product description.
2) Performance and test data.
3) Reference standards.

c. Samples.
d. Name and address of similar projects on which product was used and date of installation.

3. Itemized comparison of proposed substitution with product or method specified.
4. Data relating to changes in construction schedule.
5. Identify:

a. Other contracts affected.
b. Changes or coordination required.

6. Accurate cost data on proposed substitution in comparison with product or method specified.

C. In making request for substitution, bidder/contractor represents:

1. It has personally investigated proposed product or method and determined that substitution is equal or superior in all respects to that specified.
2. It will provide the same guarantee for substitution as for product or method specified.
3. It will coordinate installation of accepted substitutions into work, making all such changes as may be required for work to be complete in all respects.
4. Cost data is complete and includes all related costs under its contract, but excludes:

a. Costs under separate contracts.
b. Architect's redesign.
c. Administrative costs of Architect.

5. It will assume all additional costs and expenses for Owner, Architect, and other contractors.

D. Substitutions will not be considered if:

1. They are indicated or implied on shop drawings or product data submittals without formal request submitted in accordance with requirements specified herein.
2. Acceptance will require substantial revision of Contract Documents.

2. PRODUCTS

2.1. REUSE OF EXISTING MATERIALS

A. Except as specifically indicated or specified, do not use materials or equipment removed from the existing buildings.

B. For material and equipment specifically indicated or specified to be reused in the work:

1. Use special care in removal, handling, storage, and reinstallation to assure proper function in the completed work.
2. Arrange for storage and handling of products requiring restoration or renovation. Pay all costs for such work.

2.2. MATERIALS AND EQUIPMENT INCORPORATED INTO THE WORK

A. Conform to project specifications and standards.

B. Comply with size, make, type, and quality specified.

C. Manufactured and fabricated products:

1. Design, fabricate, and assemble in accord with best engineering and shop practices.
2. Manufacture like parts of duplicate units to standard sizes and gages, to be interchangeable.
3. Two or more items of the same kind shall be identical from the same manufacturer.
4. All parts of systems shall be from the same manufacturer to the greatest extent practicable.
5. Adhere to equipment capacities, sizes and dimensions shown or specified unless variations are specifically approved by Change Order.

2.3. STORAGE MATERIALS; EQUIPMENT

A. May be new or used, but shall be serviceable, adequate for required purpose, and shall not create unsafe conditions nor violate specified codes.

2.4. STORAGE SHEDS

A. Basic Requirements:

1. Number: To meet requirements of construction needs, and as acceptable to Architect.
2. Dimensions: To storage requirements of products.
3. Ventilation: To meet specified and code requirements for all products stored.
4. Heating: Maintain temperatures specified in respective specification sections for products stored.
5. At Contractor's option, make arrangements for temporary utilities following specification requirements.

B. Construction:

1. Structurally sound foundation and superstructure.
2. Weathertight, with raised floors; compatible with storage requirements.
3. Temperature transmission resistance: Compatible with storage requirements.
4. Do not use storage sheds for living quarters.

2.5. PROTECTIVE MATERIALS

A. For duration of storage period, provide materials which will provide proper protection against the elements or other harmful environmental conditions. Materials may be new or used at Contractor's option, but shall be:

1. Of sufficient strength and durability for intended use.
2. Recommended by manufacturer of products or equipment to be protected.
3. Non-staining.
4. Non-hazardous.

3. EXECUTION

3.1. TRANSPORTATION, DELIVERY & HANDLING

A. Arrange for transportation and deliveries of materials and equipment in accord with approved current construction schedules and in ample time to facilitate inspection prior to installation.

B. Coordinate deliveries to avoid conflict with work and conditions at site including the following:

1. Work of other contractors or Owner, or their use of premises.
2. Limitations of storage space.
3. Availability of equipment and personnel for handling products.

C. Deliver products in undamaged condition in original containers or packaging, with identifying labels intact and legible.

D. Clearly mark partial deliveries of component parts of assemblies or equipment to permit easy identification of parts and to facilitate assembly.

E. Immediately on delivery, inspect shipment to assure:

1. Product complies with Contract Documents and Architect reviewed submittals.
2. Quantities are correct.
3. Containers and packages are intact, labels are legible.
4. Products are properly protected and undamaged.

F. Provide equipment and personnel to handle products and equipment, including those furnished by the Owner. Prevent damage to products or packaging.

G. Provide additional protection during handling to prevent scraping, marring or otherwise damaging products, equipment or surrounding surfaces.

H. Handle products and equipment in a manner to prevent bending or over-stressing.

I. Lift packages, equipment or components only at designated lift points.

3.2. LOCATION OF STORAGE

A. Where authorized and acceptable to the Owner. General Contractor will resolve conflicts in storage requirements of all contractors.

3.3. PREPARATION FOR STORAGE

A. Fill and grade sites for temporary storage sheds to provide drainage.

3.4. INSTALLATION OF STORAGE SHEDS

A. Construct storage sheds on adequate foundations, with connections for required utilities.

1. Raise portable buildings, if used.
2. Provide steps, landings or ramps at entrances.

B. Mount fire extinguishers in prominent locations with clear access for use.

C. Mount identifying signs adjacent to entrance doors, in conspicuous locations.

3.5. LIMITATIONS

A. Do not exceed capacity of structure.

B. Do not inhibit use of:

1. Fire lanes.
2. Parking.
3. Work of other contractors.

C. Store combustible materials in accordance with applicable regulations.

3.6. PROTECTION

A. Protect all products and equipment from damage.

B. Methods:

1. Store moisture or water vulnerable materials off grade.
2. Store finished products and equipment in an enclosed building, on or off site.
3. Maintain integrity of shipping cartons until ready for installation.
4. Provide separate storage for combustible and noncombustible products.
5. Follow storage recommendations of product and equipment manufacturers.
6. Other methods shall be subject to Architect's acceptance.

3.7. MAINTENANCE AND CLEANING

A. Provide continuous maintenance for all temporary structures.

B. Repair or refinish damaged or weathered portions of structure as required to maintain in specified condition.

C. Repair or replace defective utility connections.

D. Clean storage shed or areas at least once a week.

3.8. REMOVAL

A. Remove all temporary storage sheds, contents and utilities, at completion of construction activities, or as indicated by the Architect.

B. Remove foundations and debris; grade to required elevations and clean area.

ATTACHMENTS TO THIS SECTION: PRODUCT SUBSTITUTION REQUEST FORM

END 01 6000

Product Substitution Request Form

SPECIFIED ITEM: Description: _____

The Undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: _____

Attached data includes product description, specifications, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes description of changes to Contract Documents which proposed substitution will require for its proper installation.

The undersigned states that the following paragraphs, unless modified on attachments are correct:

1. The proposed substitution does not affect dimensions shown on drawings.
2. The proposed substitution will have no adverse affect on other trades, the construction schedule, or specified warranty requirements.
3. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item and will assume all additional costs and expenses for Owner, Architect, and other contractors.

Submitted by: _____

Signature: _____

Printed Name: _____

E-Mail Address: _____

Company Name: _____

Company Address: _____

_____

Company Phone: _____

Company Fax: _____

Date: _____

1. GENERAL

1.1. WORK INCLUDES

A. Requirements and limitations for cutting and patching of work.

1. Execute cutting, filling, or patching of work, required to:

a. Make several parts fit properly.
b. Uncover work to provide for installation of ill-timed work.
c. Remove and replace defective work.
d. Remove and replace work not conforming to contract requirements.
e. Install specified work in existing construction.

2. In addition to contract requirements, upon written request of Architect:

a. Uncover work to provide for observation of covered work.
b. Remove samples of installed materials for testing.
c. Remove work to provide for alteration of existing work.

3. Do not endanger work by cutting or altering work or any part thereof.
4. Do not cut or alter work of another contractor without written consent of Architect.

1.2. SUBMITTALS

A. Submit written request in advance of cutting or alteration which affects:

1. Structural integrity of any element of Project.
2. Integrity of weather-exposed or moisture-resistant element.
3. Efficiency, maintenance, or safety of any operational element.
4. Visual qualities of sight exposed elements.

B. Include in request:

1. Identification of Project.
2. Location and description of affected work.
3. Necessity for cutting or alterations.
4. Description of proposed work, and Products to be used.
5. Alternatives to cutting and patching.
6. Date and time that work will be executed.

C. Prior to cutting and patching done on request of Architect, submit cost estimate.

D. Should conditions of work, or schedule, indicate change of materials or methods, submit recommendation to Architect, including:

1. Condition indicating change.
2. Recommendation for alternative materials or methods.
3. Submittals required for substitutions.

E. Submit written notice to Architect designating time when work will be uncovered, to provide for observation.

1.3. PAYMENT FOR COSTS

A. Costs caused by ill-timed or defective work, or work not conforming to contract documents, including costs for additional services of Architect: Party responsible for ill-timed, rejected, or non-conforming work.

B. Work done on request of Architect, in addition to the contract requirements, other than defective or non-conforming work: Owner.

C. Cutting and patching of all major holes in existing materials in remodeling work for the penetration of any contractor's work shall be installed by the General Contractor. Cost of cutting and patching of these holes, as well as costs for lintels, sleeves, or other associated construction, shall be borne by the trade requiring the holes.

D. Cost of cutting of minor holes in existing materials in remodeling work, and cost of cutting of new materials installed in remodeling work shall be the responsibility of the trade requiring the cutting. Patching shall be done by the trade normally involved with that type of work at the cost of the trade requiring the cutting.

E. Major holes shall be defined as any opening 8" x 8" or 8" in diameter, or larger, in surface area by depth as required. Minor holes shall be defined as any opening smaller than a major hole.

2. PRODUCTS

2.1. MATERIALS

A. Primary Products: Those required for original installation.

B. Product Substitution: For any proposed change in materials, submit request for substitution under provisions of the Contract Documents.

3. EXECUTION

3.1. EXAMINATION

A. Inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.

B. After uncovering existing Work, inspect conditions affecting performance of work.

C. Beginning of cutting or patching means acceptance of existing conditions.

3.2. PREPARATION

A. Provide temporary supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage.

B. Provide protection from elements for areas which may be exposed by uncovering work.

3.3. CUTTING AND PATCHING

A. Execute cutting, fitting, and patching including excavation and fill to complete work.

B. Fit products together, to integrate with other work.

C. Uncover work to install ill-timed work.

D. Remove and replace defective or non-conforming work.

E. Provide openings in the Work for penetration of mechanical and electrical work.

3.4. PERFORMANCE

A. Execute work by methods to avoid damage to other Work, and which will provide appropriate surfaces to receive patching and finishing.

B. Employ original installer to perform cutting and patching for weather exposed and moisture resistant elements, and sight-exposed surfaces.

C. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior acceptance.

D. Restore work with new products in accordance with requirements of Contract Documents.

E. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

F. At penetrations of fire-rated construction, completely seal voids with an appropriate through-penetration firestop system. Refer to Section 07 8413 – Penetration Firestopping.

G. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

END 01 7329

1. GENERAL

1.1. WORK INCLUDES

A. Substantial Completion procedures.

B. Final Completion procedures.

C. Warranties.

D. Operation and Maintenance data.

E. Project Record Documents.

F. Final cleaning.

G. Repair and adjustment of the Work.

1.2. SUBSTANTIAL COMPLETION PROCEDURES

A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.

B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request:

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
2. Submit closeout submittals, including project Record Documents, Operation and Maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Owner. Label with manufacturer's name and model number where applicable.

    a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Owner’s signature on letters of transmittal to indicate receipt of submittals.

5. Submit test/adjust/balance records.
6. Submit attendance records for all demonstration and training sessions. Submit demonstration and training video recordings, transcripts, and instructional materials where required.

C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used prior to Substantial Completion.
5. Demonstration and Training: Where required in other Sections, instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
6. Advise Owner of changeover in heat and other utilities.
7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
9. Complete final cleaning requirements, including touchup painting.
10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.3. SUBMITTAL OF PROJECT WARRANTIES

A. Warranties begin at the date of Substantial Completion, including items that were used during construction.

1. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.

1. PDF Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

1.4. OPERATIONS AND MAINTENANCE DATA

A. Format: Submit operations and maintenance manuals in the following format:

1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.

a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.

1) File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

b. Enable inserted reviewer comments on draft submittals.

2. Paper Submittal: Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves.

a. Binders: Heavy-duty, three-ring, vinyl-covered binders, 4” maximum width, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents. Provide multiple volumes as needed.

1) If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
2) Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.

b. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
c. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
d. Drawings: If oversize drawings are necessary, fold drawings to same size as text pages and use as fold-outs. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes into binder.
e. Number of copies: Three

B. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.

1. Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
2. For each item, list each Contractor’s and subcontractor’s name, address, phone, email, individual contact, and emergency contact information.
3. Divide each Specification Section by piece of equipment and identify it using the equipment identification, such as “AHU-1”.

4. Include copies of letters of transmittal for all spare parts, keys, operating tools, and maintenance materials.
5. Include copies of warranty documents.

C. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system.

1. Each manual shall contain the following materials, in the order listed:

a. Title page.
b. Table of contents.
c. Manual contents.

2. Title Page: Include the following information:

a. Subject matter included in manual.
b. Name and address of Project.
c. Name and address of Owner.
d. Date of submittal.
e. Name and contact information for Contractor.
f. Name and contact information for Construction Manager.
g. Name and contact information for Architect.
h. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
i. Cross-reference to related systems in other operation and maintenance manuals.

3. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

a. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

2. PRODUCTS (Not Used)

3. EXECUTION

3.1. FINAL CLEANING

A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
d. Remove tools, construction equipment, machinery, and surplus material from Project site.
e. Remove temporary barriers and protective coatings.
f. Remove snow and ice to provide safe access to building.
g. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, fingerprints, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
h. Remove debris and surface dust from limited access spaces, including plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
i. Remove debris from roofs, gutters, downspouts, and drainage systems.
j. Sweep concrete floors broom clean in unoccupied spaces.
k. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
l. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
m. Remove labels that are not permanent.
n. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grilles.
q. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
s. Clean resilient floors thoroughly with a well rinsed mop containing only enough moisture to clean off any surface dirt or dust and buff dry by machine to bring the surfaces to sheen.
t. Leave Project clean and ready for occupancy.

3.2. REPAIR AND ADJUSTMENT OF THE WORK

A. Complete repair and adjustment operations before requesting inspection for determination of Substantial Completion.

B. Adjust operating products and equipment to ensure smooth and unhindered operation.

C. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.

1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that that already show evidence of repair or restoration.

    a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.

3. Replace parts subjected to operating conditions during construction that may impede operation or reduce longevity.
4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

ATTACHMENTS TO THIS SECTION: APPENDIX A

END 01 7700

SECTION 01 7700 - APPENDIX A

PROJECT CLOSEOUT CHECKLIST

I. ARCHITECT PREPARE FOR EXECUTION:

A. Final Punch List

B. Certificate of Substantial Completion

II. CONTRACTOR PREPARE FOR EXECUTION AND SUBMITTAL:

A. Final Application for Payment
B. Contractor's Affidavit of Payment of Debts and Claims (AIA G706)
C. Contractor's Affidavit of Release of Liens (AIA G706A)

1. Final Waivers of Lien from:

a. Subcontractors
b. Suppliers

2. Contractor's Final Waiver of Lien in the full amount of the contract.

D. Contractor's Certification of Completion in compliance with the Contract Documents (including all Punch List items).

III. CONTRACTOR PREPARE AND SUBMIT:

A. Written guarantees as required by the Contract Documents (co-executed by subcontractor/supplier as required).
B. Required Certifications of Equipment Start-up and Test & Balance results, including attendance records of all required demonstration and training sessions.
C. Project Record Documents.
D. Operating and Maintenance Manuals.

IV. CONTRACTOR OBTAIN FROM OTHERS AND SUBMIT:

A. Certificate of Occupancy
B. Consent of Surety to Final Payment

V. CONTRACTOR VERIFY THAT OWNER HAS RECEIVED (provide Architect with letters of transmittal signed by Owner’s project representative):

A. Spare Parts as required by the Contract Documents
B. Extra Stock as required by the Contract Documents
C. Equipment Operating Tools and Keys as required by the Contract Documents

1. GENERAL

1.1. WORK INCLUDES

A. General Contractor provide:

1. Demolition and removal of selected portions of building.
2. Remove designated building equipment and fixtures.
3. Salvage of existing items to be reinstalled, turned over to Owner, or recycled.
4. Cap and identify utilities.
5. Demolition and removal of selected site items.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 1000 - Project Summary
2. Section 01 3100 - Project Coordination
3. Section 01 3300 - Submittal Procedures
4. Section 01 5000 - Temporary Facilities and Controls
5. Section 01 7329 - Cutting and Patching

1.3. DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4. MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5. SUBMITTALS

A. Submit in accordance with Section 01 3300:

1. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental

protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.

2. Schedule of Selective Demolition Activities: Indicate the following:

    a. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's and occupants on-site operations are uninterrupted.
    b. Interruption of utility services. Indicate how long utility services will be interrupted.
    c. Coordination for shutoff, capping, and continuation of utility services.
    d. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

3. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.
4. Predemolition Photographs or Video: Submit before Work begins.
5. Engineering Calculations: Submit structural calculations of shoring and underpinning systems required for the removal of existing structural components. Calculations shall be prepared and certified by a registered structural engineer.

B. Submit in accordance with Section 01 7700:

1. Submit record drawings under provisions of Section 01 7700 - Closeout Procedures. Provide photos of critical hidden work.
2. Inventory: Submit a list of items that have been removed and salvaged.

1.6. QUALITY ASSURANCE

A. Engineer Qualifications: Professional structural engineer registered in State where project is located.

B. Regulatory Requirements: Provide licensed or specialized workers where required by Federal, State, or local regulations for demolition or modification of indicated systems or elements.

C. EPA Regulatory Requirements: Comply with governing EPA notification regulations before starting demolition. Comply with hauling and disposal regulations of authorities having jurisdiction and with Illinois Department of Transportation Standard Specifications.

1.7. PROJECT CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Hazardous Materials: Hazardous materials are present in buildings and structures to be demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.

1. Hazardous material remediation is specified elsewhere in the Contract Documents.
2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
3. Owner will provide material safety data sheets for materials that are known to be present in buildings and structures to be demolished because of building operations or processes performed there.

D. Historic Areas: Demolition and hauling equipment and other materials shall be of sizes that clear surfaces within historic spaces, areas, rooms, and openings, including temporary protection, by 12 inches or more.

E. Occupancy: Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

1.8. PREINSTALLATION CONFERENCE

A. Predemolition Conference: Conduct conference at Project site.

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review structural load limitations of existing structure.
3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
5. Review areas where existing construction is to remain and requires protection.
6. Review items to be salvaged and reinstalled.
7. Use of elevator and stairs.

2. PRODUCTS

2.1. PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

3. EXECUTION

3.1. EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. [Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.

C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

Inventory and record the condition of items to be removed and salvaged. Provide photographs of conditions that might be misconstrued as damage caused by salvage operations. Make permanent record of measurements, materials, and construction details.

3.2. UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

1. Maintain fire-protection facilities in service during selective demolition operations.

3.3. PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

B. Temporary Facilities: Provide, erect, and maintain temporary barricades, security devices, and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.

a. Maintain protected egress and access at all times.

2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
4. Cover and protect furniture, furnishings, and equipment that have not been removed.
5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 01 5000 - Temporary Facilities and Controls.
6. Stair Usage: Refer to Section 01 5000 - Temporary Facilities and Controls.
7. Elevator Usage: Section 01 5000 - Temporary Facilities and Controls.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of selective demolition.

3.4. SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
5. Maintain adequate ventilation when using cutting torches.
6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
9. Dispose of demolished items and materials promptly.

B. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area.

C. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
5. Items to be removed and reinstalled are indicated on Drawings.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

E. Coordination: The General Contractor shall coordinate the work of all contractors. The General Contractor shall determine the timing of demolition operations, use of existing facilities for temporary construction utilities and the location of storage for items salvaged for re-use.

F. Extermination: The General Contractor shall employ a certified exterminator and maintain entire building in accordance with governing health regulations for rodent and insect control.

3.5. DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6. CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.7. PATCHING

A. Damages: Promptly repair damages caused to adjacent work by demolition operations.

B. Patch all floors, walls, and ceilings where existing partitions and ceilings are removed, new openings formed, or mechanical and electrical equipment is remodeled or installed. Existing surface shall be finished to match existing adjoining surfaces.

END 02 4119

1. GENERAL

1.1. WORK INCLUDES

1. General Contractor provide:

    a. Carpentry work shown on the drawings and in schedules, including miscellaneous rough framing, furring, and blocking.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 3300 - Submittal Procedures
2. Section 06 1100 – Wood Framing
3. Section 06 4000 – Architectural Woodwork
4. Section 07 6200 - Sheet Metal Flashing and Trim

1.3. REFERENCES

A. Publication Dates: Comply with standards in effect as of the date of the Contract Documents except for those having different revision dates as referenced in the codes indicated on the Drawings, or unless otherwise indicated.

B. ALSC - American Lumber Standards Committee: Softwood Lumber Standards.

C. APA - American Plywood Association: Grades and Standards.

D. American Society for Testing and Materials (ASTM):

1. ASTM D2898 - Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing.
2. ASTM D5516 – Test Method for Evaluating the Flexural Properties of Fire-Retardant Treated Softwood Plywood Exposed to Elevated Temperatures
3. ASTM D5664 - Test Method for Evaluating the Effects of Fire-Retardant Treatments and Elevated Temperatures on Strength Properties of Fire-Retardant Treated Lumber.
4. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

E. AWPA - American Wood Preservers' Association

F. AF&PA – American Forest & Paper Association.

G. NeLMA – Northeastern Lumber Manufacturers' Association.

H. SPIB - Southern Pine Inspection Bureau.

I. WCLIB - West Coast Lumber Inspection Bureau: Standard Grading Rules for West Coast Lumber.

J. WWPA - Western Wood Products Association.

1.4. SUBMITTALS

A. Submit in accordance with Section 01 3300:

1. Submit product data as follows:

a. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
b. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
c. For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D5664.

1.5. QUALITY ASSURANCE

A. U.S. Department of Commerce, National Institute of Standards and Technology:

1. Lumber Standard: Comply with DOC PS 20.
2. Plywood Standard: Comply with DOC PS 1.

1.6. PRODUCT HANDLING

A. Delivery and Storage: Keep materials dry during delivery and storage. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber and plywood, and provide air circulation within stacks.

2. PRODUCTS

2.1. MATERIALS

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated:

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
3. Unless completely concealed, provide dressed lumber, S4S.
4. Provide seasoned lumber with 15% maximum moisture content.

B. Framing Lumber:

1. For light, non-load bearing framing and blocking (less than 6" wide), provide the following grade and species: Construction grade, yellow or ponderosa pine.
2. For load-bearing framing (6" and wider and from 2" to 4" thick), provide: No. 2 grade; Douglas Fir (WCLIB or WWPA), Spruce-Pine-Fir (NeLMA or WWPA), or Southern Pine (SFPA).

C. Plywood:

1. Exposed plywood: Where plywood will be exposed in the finished work to receive a paint finish, provide interior type plywood with Grade A exposed faces and Grade D concealed faces.
2. Concealed plywood: Where plywood will be concealed by other work, provide interior type plywood C-D plugged grade.
3. Backing panels: For backing panels for electrical or telephone equipment, at ceiling backing, and as otherwise indicated on Drawings, provide fire-retardant treated standard grade plywood with exterior glue, 3/4" thick.
4. Plywood used in roofing work: APA rated sheathing, exterior exposure durability classification, 24/16 span rating.
5. **Provide plywood manufactured without urea formaldehyde.**

D. Miscellaneous Materials:

1. Fasteners and anchorages: Provide size and type as indicated and as recommended by specified standards, complying with specified Federal Specifications for nails, staples, screws, bolts, nuts, washers and anchoring devices. Provide special galvanized sheet metal connectors, joint hangers and nails as required to provide the framing systems and to support the loads as shown.
   a. Fasteners and anchorages for treated lumber and where rough carpentry work is either in ground contact, in roof/parapet construction, in an area of high related humidity, or exposed to weather must be Type 304 or 316 stainless steel.
   b. Sheet metal connectors and joint hangers for treated lumber and where rough carpentry work is either in ground contact, in roof/parapet construction, in an area of high related humidity, or exposed to weather must have a minimum G90 zinc-coating meeting the requirements of ASTM A653.

2. Adhesives for Gluing Wood to Wood: Formulation complying with ASTM D3498 that is approved for use indicated by adhesive manufacturer.

3. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch.
4. Sill-Sealer Gaskets: Closed-cell neoprene foam, 1/4 inch thick, selected from manufacturer's standard widths to suit width of sill members indicated.

2.2. FIRE RETARDANT-TREATED MATERIALS

A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.

1. Use treatment that does not promote corrosion of metal fasteners.
2. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D2898. Use for all applications.
3. Use treatment for which chemical manufacturer publishes physical properties of treated wood after exposure to elevated temperatures, when tested by a qualified

independent testing agency according to ASTM D5664 for lumber and ASTM D5516 for plywood.
4. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.
5. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.

C. Application: Treat items indicated on Drawings, and the following:
1. All blocking to be used for window and aluminum framed system installation.

3. EXECUTION

3.1. INSPECTION

A. Examine the supporting structure and the conditions under which the rough carpentry work is to be installed. Notify the Architect in writing of conditions detrimental to the work. Do not proceed with the installation until unsatisfactory conditions have been corrected.

3.2. INSTALLATION

A. Basic Requirements:

1. Discard units of material with defects which might impair the quality of the work, and units which are too small to fabricate the work with minimum joints or the optimum joint arrangement.
2. Set carpentry work accurately to indicated levels and lines, with members plumb and true and accurately cut and fitted.
3. Securely attach carpentry work by anchoring and fastening as shown or by recognized standards. Countersink nail heads on exposed carpentry work and fill holes. Use common wire nails, except as otherwise indicated. Use finishing nails for finish work. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials.
4. Make tight connections between members: Install fasteners without splitting of wood; predrill as required.
5. Install sill sealer gasket to form continuous seal between sill plates and foundation walls.

B. Wood Nailers, Sleepers, and Blocking:

1. Provide wherever shown and where required for screeding or attachment of other work, including toilet accessories, fire extinguisher cabinets, casework, hollow metal frames and other equipment or items requiring blocking. Form to shapes as shown and cut for true line and level of work to be attached. Coordinate location with other work involved.
2. Attachment shall support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise shown. Build into masonry during installation of masonry work. Where possible, anchor to formwork before concrete placement.
3. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

C. Installation of Plywood:

1. Comply with recommendations of the American Plywood Association (APA) for the installation of plywood.
2. Fill or grind edges of the plywood panels to provide an even surface to receive finishes indicated.

END 06 1000

1. GENERAL

1.1. WORK INCLUDES

1. General Contractor provide:

    a. Blocking in wall openings.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 3300 - Submittal Procedures
2. Section 06 1000 – Rough Carpentry
3. Section 06 4000 – Architectural Woodwork

1.3. REFERENCES

A. Publication Dates: Comply with standards in effect as of the date of the Contract Documents unless otherwise indicated.

B. ALSC - American Lumber Standards Committee: Softwood Lumber Standards.

C. APA Form E30J - Residential and Commercial; American Plywood Association.

D. APA PRP-108 - Performance Standards and Policies for Structural - Use Panels; American Plywood Association.

E. APA Form J20E - Grades and Specifications; American Plywood Association.

F. ASTM A153 - Standard Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware.

G. AWPA M4 - Standard for the Care of Preservative - Treated Wood Products; American Wood Preservers' Association.

H. AWPB LP-2 - American Wood Preservers Bureau Quality Control and Inspection Procedures for Softwood Lumber, Timber and Plywood Pressure Treated with Waterborne Preservatives for Above Ground Use.

I. AWPB LP-22 - American Wood Preservers Bureau Quality Control and Inspection Procedures for Softwood Lumber, Timber and Plywood Pressure Treated with Waterborne Preservatives for Ground Contact Use.

J. National Design Specification for Wood Construction; National Forest Products Association (NFPA).

K. NBS PS 1 - Construction and Industrial Plywood; U.S. Department of Commerce, National Bureau of Standards.

L. NBS PS 20 - American Softwood Lumber Standard; U.S. Dept of Commerce, National Bureau of Standards.

M. NFPA WCD #1 - Manual for Wood Frame Construction; National Forest Products Association (NFPA).

N. Western Lumber Grading Rules; Western Wood Products Association (WWPA).

1.4. SUBMITTALS

A. Submit in accordance with Section 01 3300:

1. Material Certificates: Where dimension lumber is provided to comply with minimum allowable unit stresses, submit listing of species and grade selected for each use, and submit evidence of compliance with specified requirements. Compliance may be in form of a signed copy of applicable portion of lumber producer's grading rules showing design values for selected species and grade. Design values shall be as approved by the Board of Review of American Lumber Standards Committee.
2. Wood Treatment Data: Submit chemical treatment manufacturer's instructions for handling, storing, installation, and finishing of treated material.

a. Preservative treatment: For each type specified, include certification by treating plant stating type of preservative solution and pressure process used, net amount of preservative retained, and conformance with applicable standards.
b. For preservative treatment for above ground use include statement that moisture content of treated materials was reduced to levels indicated prior to shipment to project site.

1.5. QUALITY ASSURANCE

A. Lumber Standards: Manufacture lumber to comply with PS 20 and with applicable grading rules of inspection agencies certified by American Lumber Standards Committee's (ALSC) Board of Review.

B. Inspection Agencies: Inspection agencies and the abbreviations used with reference to lumber grades and species include WWPA: Western Wood Products Association.

C. Grade Stamps: Factory-mark each piece of lumber with grade stamp of inspection agency, evidencing compliance with grading rule requirements and identifying grading agency, grade, species, moisture content at time of surfacing, and mill.

D. Construction Panel Standards: Comply with PS 1 for plywood panels; for products not manufactured under PS 1 provisions, comply with American Plywood Association (APA) Performance Standard PRP

E. Concealed APA Performance-Rated Panels: Where construction will be used for concealed applications, provide APA performance-rated panels complying with requirements of APA Form F405 as indicated for grade designation, span rating, exposure durability classification, detail (where applicable), and thickness.

F. Trademark: Factory-mark each construction panel with APA trademark evidencing compliance with grade requirements.

1.6. DELIVERY, STORAGE, AND HANDLING

A. Store and protect products under provisions of Section 01 6000.

B. Delivery and Storage: Keep materials under cover and dry. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber as well as plywood and

other panels; provide for air circulation within and around stacks and under temporary coverings including polyethylene and similar material.

C. Time delivery and erection of materials to avoid on site storage and to avoid delay of construction schedule.

1.7. PROJECT CONDITIONS

A. Coordination: Fit carpentry work to other work; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds, and similar supports to allow attachment of other work.

2. PRODUCTS

2.1. LUMBER MATERIALS

A. Nominal sizes are indicated, except as shown by detail dimensions. Provide actual sizes as required by PS 20 for moisture content specified for each use.

1. Surfacing: Provide dressed lumber (S4S).
2. Moisture content, concealed lumber: Surfaced-dry or MC19 (19% maximum moisture content).

B. Miscellaneous Lumber: Provide wood for support or attachment of other work. Provide lumber of sizes indicated, worked into shapes shown.

1. Moisture content: 19% maximum.
2. Lumber: S4S, construction grade.
3. Boards: No. 2 or better grade.

C. Boards - less than 2" thickness.

1. Moisture Content: Surfaced-dry (19% maximum).
2. Surfacing: S4S.
3. Grading Agency: WWPA
4. Species:

a. Douglas fir-larch.
b. Hem-fir.
c. Grade: No. 2 or better.

2.2. ACCESSORIES AND MISCELLANEOUS MATERIALS

A. Fasteners and Anchorages: Provide size, type, materials and finish as indicated and as recommended by applicable standards.

1. Comply with applicable Federal Specifications for nails, staples, screws, and framing anchors of the size and type recommended by the manufacturer for each use.
2. Provide fasteners and anchorages with a hot-dip zinc coating (ASTM A 153) for treated lumber and where rough carpentry work is either in ground contact, in an area of high relative humidity, or exposed to weather.

B. Joist Hangers: Galvanized steel, sized to suit joists and framing conditions as shown in drawings; manufactured by Simpson Strong Tie Co. or Architect acceptable equivalent.

C. Anchors: Toggle bolt type for anchorage to hollow masonry. Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolts or ballistic fasteners for anchorage to steel.

D. Drywall Screws: Bugle head, steel, power driven type, length of three times thickness of sheathing.

E. Building Paper: No. 15 asphalt felt.

F. Glue: Waterproof, air cure type, cartridge dispensed.

G. Adhesives for Gluing Wood to Wood: Formulation complying with ASTM D 3498 that is approved for use indicated by adhesive manufacturer.

3. EXECUTION

3.1. INSPECTION

A. Examine the supporting structure and the conditions under which the carpentry work is to be installed. Notify the Architect in writing of conditions detrimental to the work. Do not proceed with the installation until unsatisfactory conditions have been corrected.

3.2. INSTALLATION - GENERAL

A. Discard units of material with defects which might impair quality of work, and units which are too small to use in fabricating work with minimum joints or optimum joint arrangement.

B. Set carpentry work to required levels and lines, with members plumb and true to line and cut and fitted.

C. Securely attach carpentry work to substrate by anchoring and fastening as shown, and as required by recognized standards.

D. Countersink nail heads on exposed carpentry work and fill holes.

E. Use common wire nails, except as otherwise indicated. Use finishing nails for finish work. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting of wood; predrill as required.

3.3. MISCELLANEOUS CARPENTRY

A. Provide miscellaneous blocking, nailers, grounds, and framing as shown and as required for support of facing materials, fixtures, specialty items, and trim. Form to shapes as shown and cut as required for true line and level of work to be attached. Coordinate location with other work involved.

B. Attach to substrate as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise indicated.

3.4. WOOD BLOCKING AND CURBING

A. Provide wherever shown and where required for screeding or attachment of other work, including toilet accessories, fire extinguisher cabinets, casework, hollow metal frames and other equipment or items requiring blocking. Form to shapes as shown and cut for true line and level of work to be attached. Coordinate location with other work involved.

B. Attachment shall support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise shown. Build into masonry during installation of masonry work. Where possible, anchor to formwork before concrete placement.

3.5. EXTERIOR TRIM

A. Exterior trim shall be free from loose knots.

B. Nailing: Each piece should be toenailed at each support. As indicated on drawings, courses shall be spiked to each other.

C. Align joints in the same general line.

END 06 1100

1. GENERAL

1.1. WORK INCLUDES

1. General Contractor provide:

    a. Architectural woodwork as indicated on the Drawings, including:

        1) Standing and Running Trim.
        2) Shop Finishing.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 3300 - Submittal Procedures
2. Section 06 1000 - Rough Carpentry
3. Section 07 9200 – Joint Sealants
4. Section 08 8000 – Glazing

1.3. REFERENCES

A. Publication Dates: Comply with standards in effect as of the date of the Contract Documents except for those having different revision dates as referenced in the codes indicated on the Drawings, or unless otherwise indicated.

B. AHA A135.4: Basic Hardboard.

C. American Lumber Standard Committee (ALSC).

D. American National Standards Institute (ANSI):

1. ANSI A208.1: Particleboard.
2. ANSI A208.2: Medium Density Fiberboard (MDF).

E. American Society for Testing and Materials (ASTM):

1. ASTM C1048 – Standard Specification for Heat Treated Flat Glass – Kind HS, Kind FT Coated and Uncoated Glass.
2. ASTM D523 – Standard Test Method for Specular Gloss.
3. ASTM D3201 – Standard Test Method for Hygroscopic Properties of Fire Retardant Wood and Wood Based Products.
4. ASTM D5516 – Test Method for Evaluating the Flexural Properties of Fire-Retardant Treated Softwood Plywood Exposed to Elevated Temperatures
5. ASTM D5664 - Test Method for Evaluating the Effects of Fire-Retardant Treatments and Elevated Temperatures on Strength Properties of Fire-Retardant Treated Lumber.
6. ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials.

F. AWS - Architectural Woodwork Standards, 1st edition.

G. Builders Hardware Manufacturers Association (BHMA):

1. BHMA A156.9: Cabinet Hardware.
2. BHMA A156.11: Cabinet Locks.
3. BHMA A156.18: Materials and Finishes.

H. HPVA HP-1- American National Standard for Hardwood and Decorative Plywood.

I. ISSFA-2: International Solid Surface Fabricators Association – Classification and Standards for Solid Surfacing Materials.

J. LMA EDG-1: PVC or polyester edge banding.

K. LMA SAT-1: Thermally fused melamine finishes.

L. NEMA LD 3 - High pressure decorative laminates.

M. U.S. Department of Commerce, National Institute of Standards and Technology:

1. DOC PS 1: Product Standard for Structural Plywood.
2. DOC PS 20: American Softwood Lumber Standard.

1.4. DEFINITIONS

A. Concealed:

1. Surfaces not normally visible after installation.
2. Bottoms of cabinets less than 30” above finished floor.
3. Tops of cabinets over 78” above finished floor which are not visible from an upper level.
4. Stretchers, blocking, components concealed by drawers.

B. Exposed:

1. Surfaces visible when drawers and solid doors are closed.
2. Surfaces visible behind clear glass doors.
3. Interior surfaces of open units.
4. Bottoms of cabinets 42” or more above finished floor.
5. Tops of cabinets less than 78” above finished floor, or are visible from an upper floor or staircase after installation.
6. Front edges of cabinet body members visible through a gap greater than 1/8” with doors and drawers closed.
7. Surfaces visible when fixed appliances are installed.

C. Plywood: Veneer core plywood.

D. Semi-exposed:

1. Surfaces visible when doors are open.
2. Bottoms of cabinets 30”-42” above finished floor.
3. All front edges of shelving behind doors.

E. Gloss: Conform to ASTM D523 for the following:

1. Satin refers to low-sheen finish with a gloss range between 15 and 35 when measured at a 60 degree meter.
2. Semigloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60 degree meter.

3. Full gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60 degree meter.

1.5. SUBMITTALS

A. Submit in accordance with **Section 01 3300**:

1. Submit shop drawings and product data.

a. Shop drawings shall include, but are not limited to the following:

1) Methods of construction.
2) Exact material selections.
3) Component profiles.
4) Method of attachment.
5) Substrates.
6) Details of joinery.
7) Dimensioned plans, sections, elevations, and details.
8) Relationship to adjacent work.
9) Locations and sizes of furring, blocking, and hanging strips.
10) Locations and sizes of cutouts and holes.
11) Schedule of finishes.
12) Woodworking fabricator's and installer's technical suggestions.
13) Refer to "Quality Assurance" article for additional information.

b. Include fire-retardant product data.
c. Include Fire-Test Response Characteristics documentation for each product per ASTM E84.

1.6. QUALITY ASSURANCE

A. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Standards" (AWS) for grades of interior architectural woodwork indicated for construction, finishes, installation, shop drawings, and other requirements.

1. In case of conflict between the indicated standards and other language in this Section or in the Drawings, notify the Architect in writing prior to performing Work. Wherever a higher standard is indicated, provide the higher standard.

B. Shop Drawings: The Contract Documents are not fabrication drawings and shall not be copied or referenced as shop drawings. Shop Drawings shall be of sufficient detail to illustrate compliance with the design intent, including the quality standard referenced. Fabrication shall not commence without Shop Drawings approved by the Architect.

C. Fabricator Qualifications: Shop that employs skilled workers who fabricate products similar to those required for this Project. Fabricator must have a minimum of 5 years experience and have a record of successful in-service performance for projects of similar size and scope.

D. Installer Qualifications: Installer shall have skilled workers, must have a minimum of 3 years experience and have a record of successful in-service performance for projects of similar size and scope.

E. Fire Retardant Materials: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate

markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.

1.7. DELIVERY, STORAGE, AND HANDLING

A. Protect materials during transit, delivery, storage and handling to prevent damage, soiling and deterioration.

B. Do not deliver materials until painting, wet work, grinding and similar operations which could damage, soil or deteriorate architectural woodwork have been completed in installation areas.

C. Store materials in ventilated, interior locations under constant minimum temperatures of 60 degrees F. and maximum relative humidity of 55%.

1.8. PROJECT CONDITIONS

A. Conditioning: Do not install architectural woodwork until the specified temperatures and relative humidity have been stabilized and will be maintained in installation areas.

B. Maintain temperature and humidity in installation area to maintain moisture content of installed woodwork within a 1.0% tolerance of the optimum moisture content, from the date of installation through the remainder of the construction period.

C. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.
2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.9. COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that the Work in this Section can be supported and installed as indicated.

1.10. WARRANTY

A. Manufacturer shall warrant architectural woodwork from defects in material and workmanship for a period of three (3) years starting from date of Substantial Completion.

1. Failures include, but are not limited to, the following:

a. Delamination of components or other failures of adhesive bond.
b. Warping of components.
c. Failure of operating hardware.
d. Deterioration of finishes.

2. PRODUCTS

2.1. MATERIALS

A. Wood Materials:

1. Wood Moisture Content: Provide kiln-dried lumber and maintain 5 to 10% moisture content in solid wood (hardwood and softwood) through fabrication, installation, and finishing operations of interior work.
2. Lumber: DOC PS 20 and applicable grading rules of inspection agencies certified by ALSC's Board of Review.

    a. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.
3. Hardboard: AHA A135.4.
4. Softwood Plywood: DOC PS 1; Sheathing Grade, Group 2.
5. Hardwood Plywood: HPVA HP-1; Custom grade in accordance with AWS; with lumber core material with hardwood face veneer as indicated elsewhere in this Section in all exposed applications.

B. Fire-Retardant Materials:

1. General: Where ASTM E84 fire-test-response characteristics of Class C or above are indicated as required, use the following for compliance:

    a. Lumber: If lumber is not of the Class designated, provide lumber treated as specified herein as Fire-Retardant-Treated Lumber by Pressure Process.
    b. Panels: If panel materials are not of the Class designated, provide face veneer thickness of less than 0.036 inch over a panel substrate that is of the Class designated as specified in this Section.

2. Fire-Retardant Materials, General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this Article, that are acceptable to authorities having jurisdiction, and with specified.

    a. Do not use treated materials that do not comply with requirements of referenced woodworking standard or that are warped, discolored, or otherwise defective.
    b. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.
    c. Identify fire-retardant-treated materials with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.

3. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.

    a. Use treatment that does not promote corrosion of metal fasteners.
    b. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D3201 at 92 percent relative humidity. Use where exterior type is not indicated
    c. Use treatment for which chemical manufacturer publishes physical properties of treated wood after exposure to elevated temperatures, when tested by a

qualified independent testing agency according to ASTM D5664 for lumber and ASTM D5516 for plywood.

d. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.

e. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.

2.2. ACCESSORIES

A. Fasteners for interior architectural woodwork: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.

B. Adhesives: Wood glues, paneling adhesives, laminate adhesives, and construction adhesives used in accordance with manufacturer's instructions.

C. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.

D. Wood Filler: Solvent based, tinted to match surface finish color.

2.3. STANDING AND RUNNING TRIM

A. Grade: AWS Custom.

B. Hardwood Lumber Trim for Transparent Finish (Stain or Clear Finish):

1. Species: Match existing
2. Cut: Plain sliced
3. Finger Jointing: Not allowed.
4. Gluing for Width: Not allowed
5. Veneered Material: Not allowed
6. Matching: Selected for compatible grain and color.
7. Finish: Field Finished to match existing.

C. Fabrication: Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except not at the following:

1. Members with ends exposed in finished work.
2. Shoe and crown moulds.

2.4. FABRICATION – GENERAL

A. Design and Construction Features: Comply with the Drawings for profile and construction and, comply with specified Quality Standards.

B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

C. Provide concealed fasteners in entire construction.

D. Measurements: Before proceeding with fabrication of woodwork to be fitted to other construction, obtain measurements and verify dimensions and shop drawing details as required for accurate fit.

2.5. SHOP FINISHING

A. General: Unless otherwise indicated or if items are prefinished, all Work in this Section shall receive the shop finish as specified in this Section. Shop finishing shall occur at the fabrication shop. Defer only final touchup, cleaning, and polishing until after installation.

1. Provide appropriate materials for field touch-up of finishes.

B. Transparent Finish:

1. Grade: AWS Premium.
2. AWS Finish System: Conversion Varnish or Catalyzed Polyurethane.
3. Staining: Match existing; contractor shall obtain sample acceptable to Architect from site during submittal phase.
4. Wash Coat for Stained Finish: Apply wash-coat sealer to woodwork made from closed grain wood before staining and finishing.
5. Open Finish for Open-Grain Woods: Do not apply filler to open-grain woods.
6. Filled Finish for Open-Grain Woods: For open-grain woods, after staining (if any), apply wash-coat sealer. Then apply paste wood filler wipe off excess. Tint filler to match stained wood.

3. EXECUTION

3.1. EXAMINATION

A. Examine, with the Installer present, the areas and conditions under which the work is to be installed. Notify the Architect in writing of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected.

B. Verify adequacy of backing and support framing and all dimensions relating to the installation of architectural woodwork work.

3.2. PREPARATION

A. Condition wood materials to average prevailing humidity conditions in installation areas for a minimum of 24 hours prior to installation.

B. Examine architectural woodwork materials before installation. Reject materials that are wet, damaged, moisture damaged, mold damaged, or of otherwise unacceptable quality.

1. Discard all material which is unsound, warped, bowed, twisted, damaged, too small to fabricate work without minimum joints, or which is of defective manufacture with respect to surfaces, sizes or patterns.

C. Clean substrates of projections and substances detrimental to application.

3.3. INSTALLATION – GENERAL

A. Woodwork installation shall meet or exceed AWS Premium Grade.

B. Install the work plumb, level, true, aligned with adjacent materials, and straight with no distortion. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level; and with 1/32" maximum gap between exposed components, 1/16" maximum offsets in revealed adjoining surfaces. Scribe and cut work to fit adjoining work and surfaces, and refinish cut surfaces or repair damaged finish at cuts.

C. Coordinate interior architectural woodwork with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate architectural woodwork.

D. Fasten to prevent movement or warping. Anchor architectural woodwork to framing or blocking built-in or directly attached to substrates. Secure to grounds, stripping, and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation.

E. Install without splitting; drill pilot holes before fastening where necessary to prevent splitting.

F. Avoid face/"exposed" fastening wherever possible. Use fine finish nails or screws for "exposed" fastening, countersunk and filled flush with finish surface with non-shrink wood putty. Putty must be colored to match the architectural woodwork and be top-coated with a minimum of one coat of clear coat (varnish or polyurethane as specified) or paint finish, as appropriate. Final appearance of "exposed" fastening shall be barely detectable to the naked eye from a distance of 6' to 8'.

3.4. INSTALLATION – STANDING AND RUNNING TRIM

A. Select and arrange pieces to minimize noticeable variations in grain character and color between adjacent pieces.

B. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary.

C. Stagger joints in adjacent and related standing and running trim.

D. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints.

E. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.

1. Fill gaps, if any, between running trim and wall with one of the following as acceptable to the Architect:

a. Plastic wood filler, sand smooth, and finish same as trim.
b. Clear or paintable semi-elastomeric sealant to match existing

3.5. ADJUSTMENT, CLEANING, AND PROTECTION

A. Repair damaged and defective architectural woodwork work wherever possible to eliminate defects functionally and visually; where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.

B. Clean all exposed and semi-exposed surfaces of architectural woodwork and all casework interiors. Touch up shop-applied finishes to restore damaged or soiled areas. Clean, lubricate, and adjust hardware.

C. Protect and maintain conditions to ensure that the work will be without damage or deterioration at the time of acceptance.

END 06 4000

1. GENERAL

1.1. WORK INCLUDES

A. General Contractor provide:

a. Sheet metal fabrications.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 3300 – Submittal Procedures
2. Section 06 1000 – Rough Carpentry
3. Section 07 9200 – Joint Sealants
4. Section 08 4113 – Aluminum Entrances & Storefronts
5. Section 08 5113 – Aluminum Windows

1.3. PERFORMANCE REQUIREMENTS

A. General: Sheet metal flashing and trim assemblies as indicated shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

B. Thermal Movements: Provide sheet metal flashing and trim that allows for thermal movements from ambient and surface temperature changes.

1.4. SUBMITTALS

A. Submit in accordance with Section 01 3300:

1. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
2. Shop Drawings: Show fabrication and installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work. Include the following:

   a. Identification of material, thickness, weight, and finish for each item and location in Project.
   b. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
   c. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.
   d. Details of termination points and assemblies, including fixed points.
   e. Detail formed flashing and trim at a scale of not less than 1-1/2 inches per 12 inches.
3. Samples for Initial Selection: For each type of sheet metal flashing, trim, and accessory indicated with factory-applied color finishes involving color selection.
4. Samples for Verification: For each type of exposed finish required. Where finish involves normal color or texture variations, include samples showing the full range of variations expected.
5. Qualification Data: For qualified fabricator.
6. Warranty: Sample of special warranty.

1.5. QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.

C. Copper Sheet Metal Standard: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

D. General Fabrication: NRCA (National Roofing Contractors Association).

1.6. DELIVERY, STORAGE, AND HANDLING

A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.

B. Protect strippable protective covering on sheet metal flashing and trim for exposure to sunlight and high humidity, except to the extent necessary for the period of sheet metal flashing and trim installation.

1.7. WARRANTY

A. Fluoropolymer Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within 20 years from date of Substantial Completion. Deterioration includes, but is not limited to, the following:

1. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
2. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
3. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. PRODUCTS

2.1. SHEET METALS

A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.

B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required.
1. As-Milled Finish: One-side bright mill finish.
2. Color Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.

a. Color: To match the color of the aluminum entrance.
b. Color Range: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

3. Exposed Coil-Coated Finishes:
    a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
    b. Color: To match aluminum window color.

4. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil (0.013 mm).

2.2. UNDERLAYMENT/SEPARATION MATERIALS

A. Polyethylene Sheet: 6-mil- (0.15-mm-) thick polyethylene sheet complying with ASTM D 4397.

B. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, nonperforated.

C. Self-Adhering, High-Temperature Sheet: Minimum 30 to 40 mils (0.76 to 1.0 mm) thick, consisting of slip-resisting polyethylene-film top surface laminated to layer of butyl or SBS-modified asphalt adhesive, with release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.

1. Thermal Stability: ASTM D 1970; stable after testing at 240 deg F (116 deg C).
2. Low-Temperature Flexibility: ASTM D 1970; passes after testing at minus 20 deg F (29 deg C).

D. Slip Sheet: Building paper, 3-lb/100 sq. ft. (0.16-kg/sq. m) minimum, rosin sized.

E. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

2.3. MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal unless otherwise indicated.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.

1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.

    a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
    b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.

2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.

C. Sealants: As specified in Section 07 9200 - Joint Sealants.

2.4. FABRICATION, GENERAL

A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions,

geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.

1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
2. Obtain field measurements for accurate fit before shop fabrication.
3. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.

B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

C. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.

D. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.

E. Cleats and Attachment Devices: Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal. Size as recommended by SMACNA's "Architectural Sheet Metal Manual" for application, but not less than thickness of metal being secured. Cleats shall be continuous.

F. Seams in metal other than aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.

G. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints where necessary for strength.

2.5. WALL SHEET METAL FABRICATIONS

A. Opening Flashings in Frame Construction: Fabricate head, sill, and similar flashings to extend 4 inches beyond wall openings. Form head and sill flashing with 2-inch- (50-mm-) high, end dams. Fabricate from the following materials:

1. Aluminum: 0.027 inch thick.

3. EXECUTION

3.1. EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of the Work.

1. Verify compliance with requirements for installation tolerances of substrates.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION, GENERAL

A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
3. Blind clips shall be continuous.
4. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
5. Install sealant tape where indicated.
6. Torch cutting of sheet metal flashing and trim is not permitted.
7. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.

1. Coat back side of **uncoated aluminum** sheet metal flashing and trim with bituminous coating where flashing and trim will contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of self-adhering high temperature sheet and cover with a slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.

D. Seal joints as shown and as required for watertight construction.

1. Form joints to completely conceal sealant. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
2. Prepare joints and apply sealants to comply with requirements in Section 07 9200 - Joint Sealants.

3.3. WALL FLASHING INSTALLATION

A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to SMACNA recommendations and as indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.

B. Flashing Receivers: Installation of flashing receivers is specified in Section 04 2000 - Unit Masonry.

3.4. ERECTION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.5. CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder.

C. Clean off excess sealants.

D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces. Maintain in a clean condition during construction.

E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END 07 6200

1. GENERAL

1.1. WORK INCLUDES

A. General Contractor provide:

a. Preparation of sealant substrate surfaces.
b. Joints in vertical surfaces and nontraffic horizontal surfaces.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 3300 - Submittal Procedures
2. Section 06 4000 – Architectural Wood Work
3. Section 07 6200 – Sheet Metal Flashing & Trim
4. Section 08 8000 – Glazing: Sealants used in conjunction with glazing installation.

1.3. REFERENCES

A. Publication Dates: Comply with standards in effect as of the date of the Contract Documents unless otherwise indicated.

B. American Society for Testing and Materials (ASTM):

1. ASTM C717 – Standard Terminology for Building Seals and Sealants.
2. ASTM C719 – Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement.
3. ASTM C804 - Use of Solvent-Release Type Sealants.
4. ASTM C834 – Standard Specification for Latex Sealants.
5. ASTM C919 – Standard Practice for Use of Sealants in Acoustical Applications.
6. ASTM C920 – Standard Specification for Elastomeric Joint Sealants.
7. ASTM C1021 – Standard Practice for Laboratories Engaged in the Testing of Building Sealants.
8. ASTM C1193 – Standard Guide for Use of Joint Sealants.
9. ASTM C1247 – Standard Test Method for Durability of Sealants Exposed to Continuous Immersion in Liquids.
10. ASTM C1248 – Standard Test Method for Staining of Porous Substrate by Joint Sealants.
11. ASTM C1311 – Standard Specification for Solvent Release Sealants.
12. ASTM C1330 – Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants.
13. ASTM C1521 – Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints.
14. ASTM D1056 – Standard Specification for Flexible Cellular Materials - Sponge or Expanded Rubber.
15. ASTM D2240 – Standard Test Method for Rubber Property 8212; Durometer Hardness.

C. Code of Federal Regulations: 21 CFR 177.2600 – Rubber Articles Intended for Repeated Use.

D. FS TT-S-00230 - Sealing Compound: Elastomeric Type, Single Component.

E. NSF/ANSI 51 – Food Equipment Materials.

F. SWRI (Sealant, Waterproofing, and Restoration Institute).

1.4. DEFINITIONS

A. Class: Per ASTM C920, elastomeric sealants are categorized according to tested capabilities. The following classes are expressed as a percentage of joint width.

1. 12-1/2 = 12-1/2% movement in both extension and compression for a total of 25%.
2. 25 = 25% movement in both extension and compression for a total of 50%
3. 35 = 35% movement in both extension and compression for a total of 70%
4. 50 = 50% movement in both extension and compression for a total of 100%
5. 100/50 = 100% movement in extension and 50% in compression.

B. Grade: Per ASTM C920:

1. NS = Non-Sag
2. P = Pourable

C. Type: Per ASTM C920:

1. M = Multi-Component
2. S = Single Component

D. Use: Per ASTM C920, elastomeric sealants are categorized according to tested performance.

1. Substrates:

a. A = Aluminum (Clear Anodized).
b. G = Glass (Clear Float).
c. M = Mortar (Portland Cement Mortar).
d. O = Other than A, G, or M.

2. I = Immersed in Liquids
3. NT = Non-Traffic
4. T = Traffic

1.5. SUBMITTALS

A. Submit in accordance with Section 01 3300:

1. Submit manufacturer’s product data for each sealant/product indicating:

a. Chemical characteristics.
b. Performance criteria.
c. Limitations.
d. Color availability.
e. Installation instructions.

2. Certificates:

a. Certification by joint sealant manufacturer that their products comply with specification requirements and are suitable for the use and substrates indicated.

3. Samples for Initial Selection: Manufacturer's standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view.

4. Qualification Data: At the request of the Architect/Engineer, provide documentation to demonstrate the required level of applicator qualifications as specified in the "Quality Assurance" Article in this Specification to document their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.6. QUALITY ASSURANCE

A. Conform to Sealant, Waterproofing, and Restoration Institute recommendations for materials and installation.

B. Installer Qualifications: Engage an experienced Installer who has completed joint sealant applications similar in material, design, and extent to that indicated for Project and that have resulted in a record of successful in-service performance. If a manufacturer requires authorized installers for their products, the installer must be authorized to install said products.

C. VOC Content: All products shall comply with VOC limits of authorities having jurisdiction.

D. Source Limitations: Obtain each type of joint sealant from a single manufacturer.

1.7. DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration period for use, pot life, curing time, and mixing instructions for multicomponent materials.

B. Store and handle materials in compliance with manufacturer's recommendations to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes. Store all products in a manner to prevent damage; in a secure place, out of the way of construction operations. Provide protection until ready for use.

C. Handle in accord with manufacturer's recommendations.

1.8. PROJECT CONDITIONS

A. Environmental Conditions: Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside the limits permitted by joint sealant manufacturer.
2. When joint substrates are wet.
3. Do not install solvent curing sealants in enclosed building spaces.
4. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.
5. Weather: Do not install products during adverse weather conditions.

B. Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than or greater than allowed by joint sealant manufacturer for application indicated.

C. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

1.9. SEQUENCING AND SCHEDULING

A. Sequence installation of joint sealants to occur not less than 21 nor more than 30 days after completion of waterproofing, unless otherwise indicated.

B. Coordinate the work of this Section with all Sections referencing this Section.

1. Coordinate the sequence of painting with sealant installation.

1.10. WARRANTY

A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants and accessories which fail to achieve air tight and watertight seal, exhibit loss of adhesion or cohesion, tear, rupture, or do not cure. Prime Contractor shall co-certify the warranty.

1. Three years from date of Substantial Completion.

2. PRODUCTS

2.1. MATERIALS, GENERAL

A. Products: Subject to compliance with requirements, provide one of each of the types of products listed in this Specification.

B. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.

C. Stain-Test-Response Characteristics: Sealants shall be nonstaining to exposed porous substrates. Provide products that have undergone testing according to ASTM C1248 and have not stained porous joint substrates indicated for Project.

D. Colors: Provide color of exposed joint sealants to comply with the following:

1. Provide selections made by Architect from manufacturer's full range of colors for products of type specified.

2.2. SYSTEM PERFORMANCE REQUIREMENTS

A. Provide joint sealants for exterior and interior applications that have been produced and installed to establish and maintain airtight continuous seals that are water resistant and cause no staining or deterioration of joint substrates.

2.3. ELASTOMERIC JOINT SEALANTS

A. General, Elastomeric Sealants:

1. Elastomeric Sealant Standard: Provide manufacturer's standard chemically curing elastomeric sealants that comply with ASTM C920 and other requirements indicated for each elastomeric joint sealant, including those requirements referencing ASTM C920 classifications for Type, Grade, Class, and Uses related to exposure and joint substrates.

B. Silicone Sealants:

1. SEALANT ES-4: Single-Component Silicone Sealant: Manufacturer's standard, single component, neutral-curing; low modulus type.

a. Acceptable products/manufacturers:

1) 756 SMS / Dow Corning
2) 795 / Dow Corning
3) 896 / Pecora Corp.
4) Sikasil WS-295 / Sika Corp.

b. Grade: NS (Non-Sag)
c. Class: 50
d. Uses Related to Exposure: NT (Non-Traffic)

2. SEALANT ES-4A: Single-Component Silicone Sealant, Non-Glazing Applications: Manufacturer's standard, single component, neutral-curing; low modulus type.

a. Acceptable products/manufacturers:

1) 791 / Dow Corning
2) 864-NST / Pecora Corp.

b. Grade: NS (Non-Sag)
c. Class: 50
d. Uses Related to Exposure: NT (Non-Traffic)

C. Polyurethane Sealants:

1. SEALANT ES-7: Single-Component Polyurethane Sealant: Manufacturer's standard, single-component, moisture-curing.

a. Acceptable products/manufacturers:

1) Sonolastic Ultra / BASF Construction Systems
2) Sikaflex 1a / Sika Corp.

b. Grade: NS (Non-Sag)
c. Class: 25
d. Uses Related to Exposure: NT (Non-Traffic) and T (Traffic)

2. SEALANT ES-7A: Single-Component Polyurethane Sealant, Non-Traffic Applications: Manufacturer's standard, single-component, moisture-curing.

a. Acceptable products/manufacturers:

1) NP 1 / BASF Construction Systems
2) DynaTrol I-XL / Pecora Corp.
3) Stampede 1 / Sherwin-Williams

b. Grade: NS (Non-Sag)
c. Class: 25
d. Uses Related to Exposure: NT (Non-Traffic)

3. SEALANT ES-9: Multi-Component Polyurethane Sealant: Manufacturer's standard, multi-component, chemical curing.

a. Acceptable products/manufacturers:

1) Dynatrol II / Pecora Corp.
2) Dymeric 240FC / Tremco

b. Grade: NS (Non-Sag)

c. Class: 50
d. Uses Related to Exposure: NT (Non-Traffic)

4. SEALANT ES-10: Multi-Component Polyurethane Sealant: Manufacturer's standard, multi-component, chemical curing.

a. Acceptable products/manufacturers:

1) NP 2 / BASF Construction Systems
2) Stampede-2NS / Sherwin-Williams
3) Sikaflex 2c NS / Sika Corp.

b. Grade: NS (Non-Sag)
c. Class: 25
d. Uses Related to Exposure: NT (Non-Traffic)

D. Hybrid Sealants:

1. SEALANT ES-12: Single-Component Silyl-Terminated Polyether Sealant: Chemical curing; paintable; low modulus type.

a. Acceptable products/manufacturers:

1) Sonolastic 150 with VLM Technology / BASF Construction Systems

b. Grade: NS (Non-Sag)
c. Class: 50
d. Uses Related to Exposure: NT (Non-Traffic)

2.4. SEMI-ELASTOMERIC JOINT SEALANTS

A. SEALANT SES-1: Acrylic-Based Solvent-Release Sealant: Manufacturer's standard one-part, non-sag, paintable, solvent-release-curing acrylic terpolymer sealant complying with ASTM C1311 or FS TT-S-00230 or both. Sealant must, without failure in adhesion and cohesion, withstand 12-1/2% movement in both extension and compression for a total of 25% joint movement.

1. Acceptable products/manufacturers: Mono 555 / Tremco
2. Grade: NS (Non-Sag)
3. Class: n/a
4. Uses Related to Exposure: NT (Non-Traffic)

B. SEALANT SES-2: Acrylic-Emulsion Sealant: Provide manufacturer's standard siliconized acrylic latex, one-part, non-sag, paintable product complying with ASTM C834. Sealant must, without failure in adhesion and cohesion, withstand 5% movement in both extension and compression for a total of 10% joint movement.

1. Acceptable products/manufacturers:

a. Sonolac / BASF Construction Systems
b. Siliconized Acrylic / Bostik, Inc.
c. AC-20+ Silicone / Pecora Corp.
d. 950A Siliconized Acrylic / Sherwin-Williams
e. Tremflex 834 / Tremco

2. Grade: NS (Non-Sag)
3. Class: n/a
4. Uses Related to Exposure: NT (Non-Traffic)

2.5. JOINT SEALANT BACKING

A. General: Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Joint Backings: ASTM C1330; Type listed below, and of size, shape, and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

1. Type B: Bicellular material with a surface skin (“soft rod”).
2. Individual rod width must be of adequate width to fit snugly in joint. Combining, twisting or braiding of smaller rods is not acceptable for wider joints.

2.6. ACCESSORIES AND MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated; non-staining type.

B. Cleaners for Nonporous Surfaces: Cleaners recommended by sealant manufacturer. Chemical cleaners shall be acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming in any way joint substrates and adjacent nonporous surfaces, and formulated to promote optimum adhesion of sealants with joint substrates.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

3. EXECUTION

3.1. EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint sealant performance. Do not proceed with installation of joint sealants until unsatisfactory conditions have been corrected.

1. Beginning of installation means installer accepts the condition of surfaces and substrates.

B. Verify that sealants are appropriate for the substrates they are to be applied to.

3.2. PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with recommendations of joint sealant manufacturer and the following requirements:

1. Remove all foreign and loose material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
2. Clean concrete, masonry, unglazed surfaces of ceramic tile, and similar porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of

developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.

3. Remove laitance and form release agents from concrete.
4. Clean metal, glass, porcelain enamel, glazed surfaces of ceramic tile, and other nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Verify that joint backing, primers, and release tapes are compatible with sealant.

C. Measure joint dimensions and size materials to achieve required width/depth ratios.

D. Joint Priming: Prime joint substrates where indicated or where recommended by joint sealant manufacturer based on preconstruction joint sealant-substrate tests or prior experience. Apply primer to comply with joint sealant manufacturer's recommendations. Confine primers to areas of joint sealant bond; do not allow spillage or migration onto adjoining surfaces.

E. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

F. Protect elements surrounding the work of this Section from damage or disfiguration.

3.3. INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint sealant manufacturer's printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations of ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Acoustical Sealant Application Standard: Comply with recommendations of ASTM C919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.

D. Installation of Sealant Backings: Install sealant backings to comply with the following requirements:

1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

    a. Do not leave gaps between ends of joint fillers.
    b. Do not stretch, twist, puncture, or tear joint fillers.
    c. Remove absorbent joint fillers that have become wet prior to sealant application and replace with dry material.

2. Install bond breaker tape between sealants where backer rods are not used between sealants and joint fillers or back of joints.

E. Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative

to joint widths that allow optimum sealant movement capability. Install sealants at the same time sealant backings are installed.

1. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
2. Install sealant in uniform, continuous ribbons free of air pockets, gaps, foreign embedded matter, ridges, and sags.
3. Ensure complete "wetting" of the joints. Bond surfaces equally on opposite sides. Fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces.
4. Tape Sealants: Apply tape sealants in double rows approximately 1” apart.

F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents that discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

G. Install sealants to depths as shown or as required by sealant manufacturer. When not shown or indicated, install within the following limitations:

1. For sidewalks, pavements, and similar joints sealed with elastomeric sealants and subject to traffic and other abrasion and indentation exposures, fill joints to a depth equal to 75% of joint width, but not more than 3/4" deep or less than 3/8" deep.
2. For normal moving joints sealed with elastomeric sealants, but not subject to traffic, fill joints to a depth equal to 50% of joint width, but not more than 1/2" deep or less than 1/4" deep.
3. For joints sealed with non-elastomeric sealants and caulking compounds, fill joints to a depth in the range of 65% to 125% of joint width.

H. Spillage: Do not allow sealants or compounds to overflow or spill onto adjoining surfaces.

1. Use masking tape or other precautionary devices to prevent staining of adjoining surfaces.

3.4. CURING

A. Cure sealants and caulking compounds in compliance with manufacturer's instructions to obtain high early bond strength and surface durability.

3.5. FIELD QUALITY CONTROL

A. Field-Adhesion Testing by Sealant Manufacturer in Conjunction with the Contractor: Field test joint sealant adhesion to joint substrates as follows:

1. Conduct field tests for each application indicated below:

a. Flashings to stone
b. Aluminum window perimeters

2. Notify Architect 7 days in advance of the dates and times when test joints will be erected.

3. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C1193, or Method A, Tail Procedure, in ASTM C1521.

a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.

4. Inspect tested joints and report on the following:

    a. Whether sealants filled joint cavities and are free of voids.
    b. Whether sealant dimensions and configurations comply with specified requirements.
    c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.

5. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration, and sealant dimensions.
6. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.

B. Non-Destructive Testing: The Architect may elect to perform testing utilizing non-destructive test methods per the Dowel Method per ASTM C1521.

C. Evaluation of Field-Adhesion Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

1. Retest: Perform one adhesion test for each contiguous length of replaced sealant joint, minimum one test for every 50 feet of replacement.

3.6. CLEANING AND REPAIRING

A. Clean work under provisions of Section 01 7700.

B. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealants and of products in which joints occur.

C. Upon completion, carefully examine all sealant and caulking work. Remove all damaged and defective work and replace with new materials.

D. Remove all surplus products, containers, and rubbish and dispose of off site.

E. Remove all spilled or spattered materials from all surfaces. When adjacent surface or other work has been damaged or stained as a result of sealing and caulking work, repair all damage and remove all stains to the satisfaction of the Architect.

3.7. PROTECTION

A. Protect finished installation under provisions of Section 01 5000.

B. Protect joint sealants during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage (other than normal wear or weathering)at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so that and installations with repaired areas are indistinguishable from original work.

3.8. SCHEDULE

A. If more than one sealant is listed below for a particular joint type, Contractor may at his option choose which sealant to use.

B. If no color is indicated, use the sealant manufacturer's standard color.

C. Exterior Window, Storefront, and Door Perimeter:

1. Type: ES-4, ES-4A, ES-7, ES-7A, ES-9, ES-10, ES-12
2. Color: To be selected by Architect/Engineer.

D. Interior Window, Storefront, and Door Perimeter:

1. Type: SES-1, SES-2
2. Color: To be selected by Architect/Engineer.

END 07 9200

1. GENERAL

1.1. WORK INCLUDES

A. General Contractor provide:

a. Exterior and interior entrance systems.
b. Exterior and interior storefront systems.
c. Hardware for door systems

1.2. RELATED WORK

A. Specified elsewhere:

1. Section 01 3300 – Submittal Procedures
2. Section 07 9200 – Joint Sealants: for joint sealants installed as part of aluminum entrance and storefront systems.
3. Section 08 5113 – Aluminum Windows
4. Section 08 8000 – Glazing

1.3. REFERENCES

A. Publication Dates: Comply with standards in effect as of the date of the Contract Documents except for those having different revision dates as referenced in the codes indicated on the Drawings, or unless otherwise indicated.

B. Aluminum Association (AA): DAF-45, Designation System for Aluminum Finishes.

C. American Architectural Manufacturers Association (AAMA):

1. AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS) - North American Fenestration Standard/Specification for Windows, Doors, and Skylights.
2. AAMA 501.1 - Test Method for Water Penetration of Windows, Curtain Walls, and Doors Using Dynamic Pressure.
3. AAMA 501.2 - Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems.
4. AAMA 501.5 - Methods of Tests for Exterior Walls.
5. AAMA 608.1 - Specification and Inspection Methods for Electrolytically Deposited Color Anodic Finishes for Architectural Aluminum.
6. AAMA 611 - Specification for Anodized Architectural Aluminum.
7. AAMA 701 - Specification for Pile Weatherstripping.
8. AAMA 800 - Specification and Test Methods for Sealants.
9. AAMA 1503.1 - Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections.
10. AAMA 2605 - Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.

D. American Society for Testing and Materials (ASTM):

1. ASTM A36 - Structural Steel.
2. ASTM A123 - Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
3. ASTM A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
4. ASTM A1008 - Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy.

5. ASTM A1011 - Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy.
6. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.
7. ASTM B221 - Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
8. ASTM B308 - Aluminum-Alloy 6061-T6 Standard Structural Shapes, Rolled or Extruded.
9. ASTM B429 - Aluminum-Alloy Extruded Structural Pipe and Tube.
10. ASTM C920 - Elastomeric Joint Sealants.
11. ASTM D2000 - Classification System for Rubber Products in Automotive Applications.
12. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
13. ASTM D2287 - Standard Specification for Nonrigid Vinyl Chloride Polymer and Copolymer Molding and Extrusion Components.
14. ASTM D4214 – Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
15. ASTM E283 - Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors.
16. ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
17. ASTM E331 - Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
18. ASTM E699 - Practice for Evaluation of Agencies Involved in Testing, Quality Assurance, and Evaluating Building Components
19. ASTM E1105 - Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors and Curtain Walls by Uniform or Cyclic Static Air Pressure Difference.

E. National Association of Architectural Metal Manufacturers (NAAMM): Metal Finishes Manual for Architectural and Metal Products.

F. National Fenestration Rating Council (NFRC):

1. NFRC 100 - Procedure for Determining Fenestration Product U-Factors.
2. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
3. NFRC 400 – Procedure for Determining Fenestration Product Air Leakage.
4. NFRC 500 - Procedure for Determining Fenestration Product Condensation Resistance Values.

G. Structural Engineering Institute/American Society of Civil Engineers:

1. SEI/ASCE 7: Minimum Design Loads for Buildings and Other Structures.

1.4. SUBMITTALS

A. Submit in accordance with Section 01 3300:

1. Product Data: Include details of construction relative to materials, dimensions of individual components, profiles, and finishes.
2. Performance Data:

a. Certification by independent testing laboratory that products comply with performance requirements listed herein.

b. Energy Performance Data: The following values shall be individually calculated for each exterior opening, demonstrating compliance with the required values indicated in this Section:

1) System Thermal Transmittance (U-factor).
2) Solar Heat Gain Coefficient.

c. NFRC Label Certificate: For all exterior fenestration products, U-factors per NFRC 100, and Solar Heat Gain Coefficient (SHGC) and Visible Transmittance (VT) per NFRC 200, shall be determined by an accredited, independent laboratory, and labeled and certified by the manufacturer.

3. Shop Drawings: Show details of fabrication and installation, including plans, elevations, sections, details of components, attachments to other work, and provisions for drainage of moisture in the system to the exterior and for expansion and contraction.

a. For entrance systems, include hardware schedule and indicate operating hardware types, quantities, and locations.

4. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for units with factory-applied color finishes.

5. Samples for Verification: For each type of exposed finish required, provide a minimum of two (2) 4" square pieces. Where finishes involve normal color and texture variations, include Sample sets showing the full range of variations expected.

6. Warranty Certificates: Submit copies of written warranty signed by the manufacturer and Contractor.

1.5. QUALITY ASSURANCE

A. Installer Qualifications: Certified in writing by system manufacturer as qualified for specified systems. Installer must have a minimum of ten years of experience with this type of construction indicating successful completion of contracts for projects of similar size and scope. Documentation of experience and qualifications shall be made available upon request.

B. Engineering Responsibility: Prepare data for entrance and storefront systems, including shop drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this project.

C. Pre-installation Meetings: Conduct pre-installation meeting including the manufacturer, the installer, the General Contractor, and the Architect to verify project requirements, substrate conditions, manufacturer's installation instructions, and manufacturer's warranty requirements.

1.6. DELIVERY, STORAGE, AND HANDLING

A. Make arrangements with General Contractor for storage of materials and equipment to be installed in project. Protection and security for stored materials and equipment, on and offsite is solely contractor's responsibility.

1.7. PROJECT CONDITIONS

A. Field Measurements: Verify dimensions by field measurements before fabrication and indicate measurements on shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.8. WARRANTY

A. Special Assembly Warranty: Standard form in which Manufacturer and Installer agree to repair or replace components of glazed aluminum entrances and storefront that do not comply with requirements or that fail in materials or workmanship within specified warranty period.

1. Failure of materials or workmanship shall include, but are not limited to, excessive leakage or air infiltration, excessive deflections, faulty deterioration of finish or metal in excess of normal weathering, and defects in weatherstripping and other components of the work.
2. Warranty Period: Five years from date of Substantial Completion.

2. PRODUCTS

2.1. MANUFACTURERS / PRODUCTS

A. Basis-of-Design: Kawneer, 451/451T

B. Acceptable Manufacturers: The following manufacturers, provided they comply with requirements of the Contract Documents and their product is comparable to that specified in this Section as determined by the Architect, are considered acceptable:

1. Kawneer
2. Substitutions: Under provisions of Section 01 6000.

2.2. SYSTEM DESCRIPTION

A. Design requirements: 4-1/2” overall depth framing. Sightline dimensions to be 2”. Glass shall be retained mechanically on all sides by continuous gaskets inserted into framing members.

1. System to be center glazed as indicated on Drawings.
2. Exterior Storefront Framing requirements:

a. Shall have thermally broken construction.

2.3. PERFORMANCE REQUIREMENTS

A. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed systems representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.

1. Aluminum-framed systems shall withstand movements of supporting structure indicated on Drawings including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
2. Dimensional tolerances of building frame and other adjacent construction.
3. Failure also includes the following:

a. Thermal stresses transferring to building structure.
b. Glass breakage.
c. Noise or vibration created by wind and thermal and structural movements.
d. Loosening or weakening of fasteners, attachments, and other components.

B. Design Wind Loads: A static air design load of 35 psf shall be applied.

C. Structural-Test Performance: Test according to ASTM E330 as follows:

1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, and permanent deformation of main framing members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity, but not less than 10 seconds.

D. Deflection of Framing Members: At design wind pressure, as follows:

1. Deflection Normal to Wall Plane: Limited to one of the following, whichever is less:

a. Edge of glass in a direction perpendicular to glass plane not exceeding L/175 of the glass edge length for each individual glazing lite.
b. 1/175 of clear span for spans up to 13 feet 6 inches and to 1/240 of clear span plus 1/4 inch for spans greater than 13 feet 6 inches.
c. An amount that restricts edge deflection of individual glazing lites to 3/4 inch.

2. Deflection Parallel to Glazing Plane: Limited to L/360 of clear span or 1/8 inch, whichever is smaller.

E. Water Penetration under Static Pressure: No evidence of water penetration through fixed glazing and framing areas when tested according to ASTM E331 at a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 12 lbf/sq. ft.

F. Thermal Movements: Allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures:

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

G. Energy Performance: Aluminum-framed systems shall have certified and labeled energy performance ratings in accordance with NFRC.

1. System Thermal Transmittance (U-factor): System value including framing specified in this Section and glazing specified in Section 08 8000. The system design must comply for each exterior opening as noted on A401.
2. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient as noted on A401.
3. Air Infiltration:
   a. Fixed Glazing/Framing Areas: 0.06 cfm/sq. ft. maximum per ASTM E283 at 1.6 psf.
   b. Glazed Swinging Entrances: 1.00 cfm/sq. ft. maximum per ASTM E283 at 1.6 psf.

4. Condensation Resistance: Fixed glazing and framing areas shall have an NFRC-certified condensation resistance rating of no less than 60 as determined according to NFRC 500.

2.4. MATERIALS

A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated, complying with the requirements of standards indicated below.

1. Sheet and Plate: ASTM B209.
2. Extruded Bars, Rods, Shapes, and Tubes: ASTM B221.
3. Extruded Structural Pipe and Tubes: ASTM B429.

4. Structural Profiles: ASTM B308.

B. Steel Reinforcement: Manufacturer shall select shapes and sizes to suit project.

1. Structural Shapes, Plates, and Bars: ASTM A36.
2. Cold-Rolled Sheet and Strip: ASTM A1008.
3. Hot-Rolled Sheet and Strip: ASTM A1011.

C. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.

1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
2. Reinforce members as required to receive fastener threads.
3. Exposed fasteners: Use of exposed fasteners should be avoided. Where necessary, fasteners shall be countersunk Phillips screw heads finished to match framing system.

D. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A123 or ASTM A153 requirements.

E. Shims: Structural plastic.

F. Concealed Flashing: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding flashing compatible with adjacent materials.

G. Brake Metal Panels: Sheet aluminum, 0.063” minimum thickness unless indicated otherwise on Drawings.

1. Brake metal panels shall be installed with a backbend and held in place with spring clips or as shown on Drawings. Double-stick tape will not be an acceptable means of installation.

H. Sealants: Use only non-hardening, non-shrinking, and non-migrating materials.

1. For nonworking, metal-to-metal joints: Small joint sealant conforming to AAMA 800.
2. For joints between other components: Suitable for application.
3. For joints between curtain wall and other building components: Provide products specified in Section 07 9200.
4. For glazing: Provide products specified in Section 08 8000.

I. Dissimilar Metal Coating: Cold-applied asphalt mastic, zinc chromate paint, or other nonconductive, non-absorptive coating.

2.5. GLASS AND GLAZING ACCESSORIES

A. Refer to Section 08 8000 - Glazing.

2.6. ENTRANCE DOOR SYSTEMS

A. Provide manufacturer's standard 2 1/4" thick for exterior thermally broken and 1 ¾” for interior glazed doors with minimum 0.125” thick, extruded tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deep penetration and fillet welded or that incorporate concealed tie-rods.

1. Glazing Stops and Gaskets: Provide manufacturer's standard snap-on extruded-aluminum glazing stops and preformed gaskets.

2. Thermal Construction: High-performance plastic connectors separate aluminum members exposed to the exterior from members exposed to the interior.
3. Stile Design: Wide stile; 5" nominal width. Provide 10” bottom rail.

2.7. HARDWARE

A. General: Provide heavy-duty hardware units as shown, scheduled or required for proper operation of each door and as otherwise indicated. Finish exposed parts to match door finish, unless otherwise indicated. Coordinate all other hardware as specified in Section 08 7100 – Hardware.

B. Continuous Gear-Type Hinge: Heavy duty commercial grade; full height (1” less than net door height); capable of supporting doors up to 200 lbs.; extruded-aluminum, pinless, geared hinge leaves joined by a continuous extruded-aluminum channel cap; with concealed, self-lubricating thrust bearings.

1. Type CH1 – Concealed leaf, heavy duty; minimum of 27 bearings for 7’-0” high door. BHMA A156.26.

a. 780-112HD/Hager
b. MCK-12HD/McKinney
c. 112HD/Ives
d. 661HD/Stanley
e. FMSLFHD1/Pemko
f. SL11HD/Select
g. As recommended by Aluminum Storefront supplier.

C. Push/pull sets – PP9: As selected by Architect from manufacturer’s full range of pull handles and plates.

D. Thresholds – T9: At exterior doors, provide manufacturer's standard threshold with cutouts coordinated for operating hardware, with anchors and jamb clips, and not more than 1/2" high, with beveled edges providing a floor level change with a slope of not more than 1:2, and in the following material:
1. Material: Aluminum mill finish.

E. Door Kick Plates: 0.050" thick; satin aluminum, clear anodized; 2” less than door width; beveled four edges; countersunk screws; 8” high. Mount on each side of door. BHMA A156.6, J102.

1. K0050/Trimco
2. As recommended by Aluminum Storefront supplier.

F. Weather Stripping – W9: Manufacturer's standard replaceable weather stripping as follows:

1. Compression Weather Stripping: Molded neoprene complying with ASTM D2000 requirements or molded PVC complying with ASTM D2287 requirements.
2. Sliding Weather Stripping: Wool, polypropylene, or nylon woven pile with nylon-fabric or aluminum-strip backing complying with AAMA 701 requirements.
3. Weather Sweeps: Manufacturer's standard weather sweep for application to exterior door bottoms and with concealed fasteners on mounting strips.

G. Exit Devices - Heavy Commercial Duty; touch bar styling; grooved mechanism case; complying with BHMA A156.3, Grade 1. Provide U.L. listed, fire rated devices for all fire rated applications.

1. Type EC – Concealed Vertical Rod:

    a. 9947/Von Duprin
    b. 8600/Sargent
    c. ED5800/Corbin-Russwin
    d. 7120/Yale
    e. Apex 2700-2800 Series/Precision
    f. 9100/Dorma
    g. As recommended by Aluminum Storefront supplier.

2. Round Stem, Flat Face with Smooth Curved Return

    a. As noted on A403.
    b. As recommended by Aluminum Storefront supplier.

3. Functions:

    a. Type 6 - Night Latch (with exterior lever): Latchbolt by touch bar inside or key outside; exterior trim acts as pull when touch bar is locked down or when latchbolt is retracted by exterior key. ANSI Type F09.
        1) This control shall be confirmed with owner and shall be coordinated with the existing security control.

    b. Options: Exit Device shall be integrated with the owner's existing control system. The contractor to verify existing installation and match requirements.

H. Closers - General Description:

1. All closers shall be inspected after installation by a factory representative to insure proper adjustment and operation.
2. Spring power shall be adjustable from sizes 1 through 6, per ANSI A117.1. Adjust spring power to a maximum opening force range of 5 lbs. on all interior doors and 8.5 lbs. on all exterior doors. Adjust spring power on fire rated doors as required to close and latch (maximum opening force of 15 lbs.)
3. Closers shall have separate adjustments for latch speed, general speed, and back check.
4. Place closer as shown on sheet A403.
5. All closers installed parallel arm shall be supplied with heavy duty rigid arms.
6. Provide all brackets, drop plates, spacer blocks, and any necessary items required to insure proper installation.
7. Types: Provide closers as noted on A403.

I. Existing Systems: Door operators, security access systems, and electrified hardware requirements are shown on A403. All items on existing doors shall be removed and replaced to maintain the existing operational control of the door. Coordinate removal and installation with General Contractor and Owner.
1. Low Energy Operators - Remove and reinstall existing door operators. See sheet A403. Doors must operate as existing doors operate.
2. Access Credentials - Remove and reinstall all security controls and devices as shown on A403. Doors must operate as existing doors operate.

J. Finishes: Finish for all hardware items specified herein which are to be installed on aluminum entrances shall match the finish specified for the aluminum components.

2.8. FABRICATION

A. Take accurate field measurements to verify required dimensions prior to fabrication.

B. Form or extrude aluminum shapes before finishing.

C. Fabricate components in accord with approved shop drawings.

D. Fabricate components that, when assembled, have the following characteristics:

1. Profiles which are sharp, straight, and free of defects or deformations.
2. Accurately fitted joints with ends coped or mitered. Remove burrs and ease edges.
3. Internal guttering system or other means to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.
4. Physical and thermal isolation of glazing from framing members.
5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.

    a. Expansion mullions, where provided, shall not be spaced less than 20 feet on center unless required by the manufacturer.

6. Thermally-broken Construction: Fabricate frame members with integral, concealed, low-conductance materials that separates exterior surfaces from interior member, without any metal-to-metal contact.
7. Provisions for field replacement of glazing from exterior.
8. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

E. Fabricate components that, when assembled, will have accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

F. Provide internal structural reinforcing within framing members where required to maintain rigidity and accommodate design loads.

G. Separate dissimilar metals with protective coating or preformed separators to prevent contact and corrosion.

H. Storefront: Fabricate framing in profiles indicated for flush glazing without projecting stops. Provide subframes and reinforcing of types indicated or, if not indicated, as required for a complete system. Factory assemble components to greatest extent possible to minimize field cutting, splicing, and assembly. Disassemble components only as necessary for shipment and installation.

I. Entrances: Fabricate door framing in profiles indicated. Reinforce doors and framing for door hardware installation and as required to support loads imposed by door operation. Factory assemble door and frame units to greatest extent possible. Cut, drill, and tap for factory-installed hardware before finishing components.

1. Exterior Doors: Provide compression weather stripping at fixed stops. At other locations, provide sliding weather stripping retained in adjustable strip mortised into door edge.
2. Interior Doors: Provide ANSI/BHMA A156.16 silencers at stops to prevent metal to metal contact. Provide 3 silencers on strike jamb of single-door frames and 2 silencers on head of double-door frames.
3. Hardware: Install all hardware, except surface-mounted hardware, at the fabrication plant. Remove only as required for final finishing operations, and for delivery and installation of the work at the project site.

2.9. ALUMINUM FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

1. Appearance shall be defined as color, sheen, and texture.

C. Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.

D. Class I, Color Anodic Finish: AA-M12C22A42/A44 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, integrally colored or electrolytically deposited color coating 0.018 mm or thicker) complying with AAMA 611.

1. Color: As selected by Architect from the full range of industry colors and color densities.

3. EXECUTION

3.1. EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of entrance and storefront systems. Do not proceed with installation until unsatisfactory conditions have been corrected.

B. The contractor is responsible to verify the existing operating parameters of each door opening. Provide hardware that integrates and maintains the same operational control of each door. Notify A/E immediately if hardware noted below is not adaptable to the existing system.

3.2. INSTALLATION

A. General:

1. Install in accordance with approved shop drawings, Construction Documents, and manufacturer’s instructions and recommendations.
2. Comply with manufacturer's written instructions for protecting, handling, and installing entrance and storefront systems.
3. Do not install damaged components.
4. Fit frame joints to produce hairline joints free of burrs and distortion.
5. Rigidly secure non-movement joints.
6. Seal joints watertight.
7. Install components plumb and true in alignment without warp or rack of framing members.
8. Shims shall not intrude into depth required for sealant and backer rod specified.

B. Metal Protection:

1. Where aluminum will contact pressure treated wood blocking, protect against galvanic action by applying self-adhesive ice and water barrier membrane as a separation.
2. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose.
3. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

C. Install components to drain condensation occurring in glazing channels, condensation occurring within framing members, and moisture migrating within the system to the exterior.

D. Entrance Doors: Install doors to produce smooth operations and tight fit at contact points. Install exterior doors to produce weathertight enclosure.

E. Entrance Door Hardware:

1. Lubricate operating hardware and other moving parts according to hardware manufacturers' written instructions.
2. Install surface-mounted hardware according to manufacturer's written instructions using concealed fasteners to greatest extent possible.
3. Coordinate reinstallation of all existing door operating and security systems as shown on sheet A403.

F. Install glazing according to shop drawings. Comply with requirements of Section 08 8000 - Glazing, unless otherwise indicated.

G. Install sealant and backer rod according to shop drawings. Comply with requirements of Section 07 9200 - Joint Sealers, unless otherwise indicated.

3.3. TOLERANCES

A. Erection Tolerances: Install entrance and storefront systems to comply with the following maximum tolerances:

1. Plumb: 1/8" in 10’; 1/4" in 40’.
2. Level: 1/8” in 20’; 1/4” in 40’.
3. Alignment:

a. Where surfaces abut in line, limit offset from true alignment to 1/16".
b. Where surfaces meet at corners, limit offset from true alignment to 1/32".

4. Diagonal Measurements: Limit difference between diagonal measurements to 1/8".

B. System will be considered defective if the work does not meet these tolerances.

3.4. FIELD QUALITY CONTROL

A. The Testing Agency shall perform the following tests and inspections:

1. Water Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.

B. Additional Tests: Testing Agency shall make additional tests when test results indicate that requirements have not been satisfied. This additional testing will be at the Contractor's expense.

1. This Work will be considered defective if it does not pass inspections. Repair or replace deficient components and assemblies. Then reinspect as specified above.

C. The Testing Agency shall prepare and submit test and inspection reports, noting all deficiencies, corrective actions, and retest results.

3.5. CLEANING AND PROTECTION

A. Clean aluminum surfaces promptly after installation, exercising care to avoid damage of the protective coating. Remove excess sealant and glazing compounds, dirt, and other substances.

B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, which ensure entrance and storefront systems are without damage or deterioration at the time of Substantial Completion.

END 08 4113

1. GENERAL

1.1. WORK INCLUDES

A. General Contractor provide:

a. Aluminum-framed windows.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 3300 - Submittal Procedures
2. Section 06 1000 - Rough Carpentry
3. Section 07 6200 - Sheet Metal Flashing and Trim
4. Section 07 9200 - Joint Sealants

1.3. REFERENCES

A. Publication Dates: Comply with standards in effect as of the date of the Contract Documents except for those having different revision dates as referenced in the codes indicated on the Drawings, or unless otherwise indicated.

B. AA DAF-45 - Designation System for Aluminum Finishes; The Aluminum Association.

C. American Architectural Manufacturer's Association (AAMA):

1. AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS) - North American Fenestration Standard/Specification for Windows, Doors, and Skylights.
2. AAMA 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products.
3. AAMA 611 - Specification for Anodized Architectural Aluminum.
4. AAMA 620 - Specifications for High Performance Organic Coatings on Coil Coated Architectural Aluminum Substrates.
5. AAMA 701/702 - Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals.
6. AAMA 800 - Specifications and Test Methods for Sealants.
7. AAMA 850 – Fenestration Sealants Guide Manual.
8. AAMA 902 – Specification for Sash Balances.
9. AAMA 904 - Voluntary Specification for Multi-Bar Hinges in Window Applications.
10. AAMA 910 – "Life Cycle" Specifications and Test Methods for Architectural Grade Windows and Sliding Glass Doors.
11. AAMA 1503 - Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors, and Glazed Wall Sections.
12. AAMA 2603 – Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
13. AAMA 2605 – Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
14. AAMA CW-10 - Care and Handling of Architectural Aluminum from Shop to Site.

D. American Society for Testing and Materials (ASTM):

1. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

2. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
3. ASTM D4214 – Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
4. ASTM E 283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
5. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
6. ASTM E 331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
7. ASTM E 547 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Cyclic Static Air Pressure Differential.
8. ASTM E2112 – Standard Practice for Installation of Exterior Windows, Doors, and Skylights.
9. ASTM E 2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.

E. NFRC – National Fenestration Rating Council:

1. NFRC 100 - Procedure for Determining Fenestration Product U-Factors.
2. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
3. NFRC 400 – Procedure for Determining Fenestration Product Air Leakage.

F. IGCC – Insulating Glass Certification Council.

G. SGCC – Safety Glazing Certification Council.

1. ANSI Z97.1 - American National Standard for Safety Glazing Materials used in Buildings – Safety Performance Specifications and Methods of Test.
2. 16 CFR 1201 - Consumer Product Safety Commission Safety Standard for Architectural Glazing Materials – codified at Title 16, Part 1201 of the Code of Federal Regulations.

1.4. SUBMITTALS

A. Submit in accordance with Section 01 3300:

1. Product Data: Manufacturer's standard product specifications and technical data on fabrication methods, finishing, hardware, and accessories, and installation and handling recommendations.

2. Performance Data:
   a. Energy Performance Data: The following values shall be individually calculated for each exterior opening, demonstrating compliance with the required values indicated in this Section:

      1) System Thermal Transmittance (U-factor).
      2) Solar Heat Gain Coefficient.

3. Shop Drawings: Show all information not fully detailed in product data and the following:

   a. Elevations.
   b. Full-size section details of all typical members.

c. Anchors.
d. Hardware.
e. Operators
f. Accessories.
g. Glazing methods.
h. Sealants.
i. Include wall opening and component dimensions; wall opening tolerances required.

4. Samples:
   a. Samples for Initial Selection of Coated Finishes: Coating manufacturer's color selection data. Where color or texture of finish may have variations, include two (2) or more sections in each sample, to show the limits of such variations.
   b. Samples for Verification of Coated Finishes: For each type and color of coated finish submit a minimum of three (3) 4” square pieces.
   c. Samples for Selection of Insect Screen Finishes.

5. Certifications:
   a. Submit current certified test laboratory reports by independent laboratory substantiating performance of system. Include other supportive data as required or as necessary including AAMA certification.
   b. NFRC Label Certificate: For all exterior fenestration products, U-factors per NFRC 100, and Solar Heat Gain Coefficient (SHGC) and Visible Transmittance (VT) per NFRC 200, shall be determined by an accredited, independent laboratory, and labeled and certified by the manufacturer.

6. Warranty: Submit specimen copy of each warranty.

B. Submit in accordance with Section 01 7700:

1. Warranties: Provide executed warranty certificates as indicated in this Specification.

1.5. QUALITY ASSURANCE

A. Source Limitations: Obtain aluminum windows through one source from a single manufacturer.

B. Test Units: Glazed, completely assembled, constructed in accord with requirements of contract documents.

1. Minimum size required by gateway performance requirements for determining compliance with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS) for both gateway performance requirements and optional performance grades.

C. Field Measurements: Verify aluminum window openings by field measurements before fabrication and indicate measurements on Shop Drawings.

D. Pre-installation Meetings: Conduct pre-installation meeting including the manufacturer, the installer, the General Contractor, and the Architect to verify project requirements, substrate conditions, manufacturer’s installation instructions, and manufacturer’s warranty requirements.

1.6. DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle windows in manner to avoid damage, under provisions of Section 01 6000.

1.7. WARRANTY

A. Warranties: Provide written warranties from Contractor, Installer, and Manufacturer, each agreeing to repair or replace all units which fail to meet the specified performance requirements within five (5) years from date of Substantial Completion.

1. Failures include, but are not limited to, the following:

a. Failure to meet performance requirements.
b. Structural failures including excessive deflection, water leakage, condensation, 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. These warranties shall be in addition to, and not a limitation of, other rights the Owner may have against the Contractor under the Contract Documents, and shall cover the complete window system.

3. Warranty shall be non pro-rated.

1.8. SYSTEM PERFORMANCE REQUIREMENTS

A. Design Wind Loads
1. The design wind pressure for the project will be:
a. 30 psf positive and negative; 45 psf negative at corner zones
b. Per wind pressure diagram
c. Per local building codes
2. All structural components, including meeting rails, mullions and anchors shall be designed accordingly, complying with deflection and stress requirements listed below.

B. Air, Water, and Structural Performance Requirements
1. When tested in accordance with cited test procedures, windows shall meet or exceed the following performance criteria, as well as those indicated in AAMA 101 and 101/I.S.2 for Architectural (AW) Performance Class windows, Performance Grade 60 (AW60) and Heavy Commercial (HC) Performance Class windows, Performance Grade 80 (HC80) unless otherwise noted herein.
2. Air Test Performance Requirements
a. Air infiltration maximum 0.3 cfm per square foot at 6.24 psf pressure differential when tested in accordance with ASTM E283.
3. Water Test Performance Requirements
a. No uncontrolled water leakage at 12.00 psf static pressure differential, with water application rate of 5 gallons/hr/sq ft when tested in accordance with ASTM E331.
4. Structural Test Performance Requirements
a. Uniform Load Deflection Test
1) No deflection of any unsupported span L of test unit (framing rails, muntins, mullions, etc.) in excess of L/175 at both a positive and negative load of 80 psf (design test pressure) when tested in accordance with ASTM E330.
2) Structural reinforcing that is not standard on units being furnished is not allowed.
b. Uniform Load Structural Test
1) Unit to be tested at 1.5 x design test pressure (120 psf), both positive and negative, acting normal to plane of wall in accordance with ASTM E330.

2) No glass breakage; permanent damage to fasteners, hardware parts, or anchors; damage to make windows inoperable; or permanent deformation of any main frame or ventilator member in excess of 0.2% of its clear span.

5. Energy Performance: Aluminum windows shall have certified and labeled energy performance ratings in accordance with NFRC.
   a. See sheet A401 for Thermal Transmittance (U-factor) and Solar Heat Gain Coefficient (SHGC) requirements.
   b. Condensation Resistance Factor (CRF): Provide aluminum windows tested for thermal performance according to AAMA 1503, showing a minimum CRF of 50.

C. Life Cycle Testing:
   1. When tested in accordance with AAMA 910-93, there is to be no damage to fasteners, hardware parts, support arms, activating mechanisms or any other damage that would cause the window to be inoperable at the conclusion of testing. Air infiltration and water resistance tests shall meet the primary performance requirements specified.

D. Condensation Resistance and Thermal Transmittance Performance Requirements
   1. Perform thermal tests in accordance with the configuration specified in AAMA 1503.1.
      a. Thermal Transmittance ("U" Factor) shall not exceed 0.50 BTU/hr/sf/deg F at 15 mph exterior wind.
      b. Condensation Resistance Factor (CRF) requirements: CRF minimum 45 (Frame) and CRF minimum 45 (specimen).

2. PRODUCTS

2.1. WINDOWS – GENERAL

A. Windows - General: Frame and sash members of extruded aluminum, complete with all hardware, accessories, sub-frames, mullions, sills, screens, and other components indicated or required; complying with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).

   1. See Drawings for sizes, profiles, and arrangement of members.

B. Window Design:

   1. Design for reglazing without removal or dismantling of sash, ventilator, or frames.
   2. Operable sash: Design so sash can be removed from inside.
   3. Condensation and Moisture: Drain water entering joints, condensation occurring in glazing channels, or migrating moisture occurring within system, to exterior.
   4. Where insulating glass is used, provide positive drainage to eliminate water standing in glazing channels.
   5. Window Components: Designed or selected by manufacturer for strength required and compatibility with other materials.

C. Thermally broken Construction: Fabricate frame and sash members with integral, concealed, low-conductance materials that separates exterior surfaces from interior member, without any metal-to-metal contact. Low-conductance material: Tested for adequate strength required for the application. Do not bridge thermal gap with any fasteners or hardware.

D. Thermal Movements: Provide aluminum windows, including anchorage, that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures determined for the project location by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and

other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

2.2. SINGLE HUNG WINDOWS

A. Acceptable Products/Manufacturers: The following products, provided they comply with the requirements of the Contract Documents as determined by the Architect, are considered acceptable.

1. Manko Window Systems, Inc. 5500 Series “Putty-Glazed” Replicate Single Hung Windows.
2. Substitutions shall follow 01 6000 requirements and only approved alternates will be considered.

2.3. MATERIALS

A. Aluminum Members

1. Extruded aluminum prime billet 6063-T5 or 6063-T6 alloy for primary components; 6063-T5, 6063-T6, or 6061-T6 for structural components; all meeting the requirements of ASTM B221.
2. Aluminum sheet alloy 3003 H 14.

2.4. MANUFACTURED UNITS

A. Materials

1. Principal window frame members will be a minimum 0.080" in thickness except at frame sills, which will be 0.093” minimum thickness.
2. Extruded or formed trim components will be a minimum 0.062" in thickness.

B. Fabrication
1. Frame depth 4 1/16” minimum.
2. Sill must allow for drainage to the exterior and function under both negative and positive pressure.
3. Frame-to-sash interface shall be designated for sweep seals, to prevent loss of weather-strip contact under positive pressure.
4. Sash must be tubular and be removable to the interior for maintenance.
5. Frames are designed for self-mulling (stacking).
6. Screen fame must not protrude from exterior of window frame.

C. Glazing
1. Stop glazed with interior removable stop and gasket.
2. Standard cavity for 1” infill.
3. Glass or panel set in structural silicone and heal bead.

2.5. COMPONENTS

A. All steel components including attachment fasteners to be 300 series stainless steel except as noted.

B. Extruded aluminum components 6063-T5 or 6063-T6.

C. Locking handles, cases and strikes to be die cast or stainless steel.

D. Thermoplastic or thermo-set plastic caps, housings and other components to be injection-molded nylon, extruded PVC, or other suitable compound.

E. Hardware:
   1. Balances
      a. Balances must provide a positive lifting force through the full range of sash travel. Sash travel must be limited on oversize units.
      b. When properly adjusted, balances must hold the sash stationary at any open position.
         1) Ultra-LiftTM balance (Recommended for improved manual assist ratio)
   2. Locks
      a. White Bronze cam action sweep latches; one per meeting rail.
      b. Provide stainless strikes: Occupant-operated sweep latches.
   3. Lift Handles
      a. Provide integral continuous lift handles on sash.
   4. Limit Stops - Provide jamb-mounted limit stops.

F. Sealants
   1. All sealants shall comply with applicable provisions of AAMA 800 and/or Federal Specifications FS-TT-001 and 002 Series.
   2. Frame joinery sealants shall be suitable for application specified and as tested and approved by window manufacturer.

G. Glass
   1. Provide in accordance with Section 08800.
   2. Sealed insulated glass shall meet ASTM E774 Class A.

H. Glazing
   1. Provide in general accordance with Section 08800.
   2. Glazing method shall be in general accordance with the FGMA Glazing Manual for specified glass type, or as approved by the glass fabricator.

I. Glazing Materials
   1. Setting Blocks/Edge Blocking: Provide in sizes and locations recommended by FGMA Glazing Manual.
   2. Back-bedding tapes, expanded cellular glazing tapes, toe beads, heel beads and cap beads shall meet the requirements of applicable specifications cited in AAMA 800.
   3. Glazing gaskets shall be non-shrinking, weather-resistant, and compatible with all materials in contact.
   4. Structural silicone sealant where used shall meet the requirements of ASTM C 1184.
   5. Spacer tape in continuous contact with structural silicone shall be tested for compatibility and approved by the sealant manufacturer for the intended application. Gaskets in continuous contact with structural silicone shall be extruded silicone or compatible material.

J. Steel Components
   1. Provide steel reinforcements as necessary to meet the system performance requirements of 1.02.
   2. Concealed steel anchors and reinforcing shall be factory painted after fabrication with rust-inhibitive primer complying with Federal Specification TT-P-645.

K. Thermal Break Construction:
   1. Frame and sash members must include a thermal break applied in the manufacturer’s facility, using concealed low conductance poured-in-place polyurethane in a pre-treated cavity.
   2. After proper curing, the aluminum bridge section must be removed to provide a 1/4” separation between exterior and interior metal surfaces.

L. Weather Stripping:

1. Dual durometer PVC, neoprene, EPDM or other suitable material as tested and approved by the window manufacturer.
2. Bulb type at exterior vent members.
3. Securely stake and join at corners. Provide drainage to exterior as necessary.
4. Weather-stripping shall provide an effective pressure-equalization seal at the interior face of the sash ventilator.

M. Receptors/Sill Starter
1. Provide extruded aluminum receptors to receive windows, as shown on architectural drawings.
2. Finish to match window frames.

2.6. FABRICATION

A. General:
1. Finish, fabricate and shop assemble frame and sash members into complete windows under the responsibility of one manufacturer.
2. No bolts, screws or fastenings to bridge thermal barrier or impair independent frame movement.
3. Fabricate to allow for thermal movement of materials when subjected to a temperature differential from -30 degrees F to +180 degrees F.

B. Frames:
1. Cope and mechanically fasten each corner leaving only hairline joinery, then seal weather tight.

C. Operating Sash Ventilator
1. Cope and mechanically fasten each corner leaving only hairline joinery, then seal weather tight.

D. Tolerances
1. Reference to tolerances for wall thickness and other cross-sectional dimensions of entrance members are nominaland in compliance with the Aluminum Standards and Data.

2.7. FINISHES

A. Finish of Aluminum Components - Finish of all exposed areas of aluminum windows and components shall be done in accordance with the appropriate AAMA Voluntary Guide Specification shown:

AAM12C21A44	ORGANIC PAINT	AAMA 2605	As selected by Architect from manufacturer's standard colors - suitable for INTERIOR or EXTERIOR finishes

3. EXECUTION

3.1. EXAMINATION

A. Inspect openings before installation. Verify wall openings are dimensionally within allowable tolerances, plumb, level, clean, and in accordance with shop drawings. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weathertight window installation.

B. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2. INSTALLATION OF WINDOWS

A. Comply with Drawings, shop drawings, and manufacturer's written instructions for installation of windows, hardware, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E2112.

B. If necessary install aluminum trim provided by the window manufacturer around the inside perimeter of the window to close any space between the window frame and the masonry wall or sill.

C. Set units plumb, level, and true, without warp or rack of frames or sash. Set units in proper relation to wall flashing and other adjacent construction. Provide proper support and anchor securely.

D. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior.

E. Separate aluminum from dissimilar metals and coat dissimilar metals that are in drainage cavities, using one of the materials specified. Stainless steel, zinc, cadmium, and small areas of white bronze are not considered dissimilar metals.

F. Coat all metals that come into contact with masonry, concrete, and treated wood, using one of the materials specified.

G. Do not allow shims to intrude into depth required for sealant and backer rod specified.

H. Set sill members in bed of sealant to provide weathertight installation.

I. Install sealant and backer rod according to shop drawings. Comply with requirements specified in Section 07 9200 for installation of joint sealants.

3.3. INSTALLATION OF GLAZING

A. Install as specified in Section 08 8000.

3.4. ADJUSTING, AND CLEANING, AND PROTECTION

A. Adjust operating sashes, ventilators, and hardware to provide tight fit at contact points and at weatherstripping, for smooth operation and weathertight closure. Lubricate hardware and moving parts.

B. Clean aluminum surfaces and glass promptly after installation. Avoid damage to protective coatings and finishes. Remove excess glazing and sealant compounds, dirt, and other substances in a manner recommended by the window manufacturer.

C. Remove protective materials from prefinished aluminum surfaces.

D. Initiate all protection and other precautions required to ensure that window units will be without damage or deterioration (other than normal weathering) at time of Substantial Completion.

END 08 5113

1. GENERAL

1.1. WORK INCLUDES

A. General Contractor provide: Glazing for the following products and applications, including those specified in other Sections and shown on Drawings, where glazing requirements are specified by reference to this Section:

a. Window units.
b. Entrances and other doors.
c. Storefront construction.

1.2. RELATED WORK

A. Specified Elsewhere:

1. Section 01 3300 - Submittal Procedures
2. Section 07 9200 – Joint Sealants: Sealants at the perimeters of windows and other glazed framing systems.
3. Section 08 4113 - Aluminum Entrance and Storefronts
4. Section 08 5113 - Aluminum Windows

1.3. DEFINITIONS

A. Manufacturer denotes the producer of primary glass, or raw glass, plastic, or panel components.

B. Fabricator indicates the producer who takes the Primary product and in turn tempers, laminates, insulates, cuts, breaks, drills, forms, or otherwise assembles and fabricates various Primary components into fabricated glazing products or Manufactured Units.

1.4. REFERENCES

A. Publication Dates: Comply with standards in effect as of the date of the Contract Documents except for those having different revision dates as referenced in the codes indicated on the Drawings, or unless otherwise indicated.

B. American Society for Testing and Materials (ASTM):

1. ASTM C509: Specification for Elastomeric Cellular Preformed Gasket and Sealing Material.
2. ASTM C542: Specification for Lock-Strip Gaskets.
3. ASTM C716: Specification for Installing Lock-Strip Gaskets and Infill Glazing Material.
4. ASTM C719: Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement.
5. ASTM C864: Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.
6. ASTM C920: Specification for Elastomeric Joint Sealants.
7. ASTM C1036: Specification for Flat Glass.
8. ASTM C1048: Specification for Heat-Treated Flat Glass - Kind HS, Kind FT Coated and Uncoated Glass.
9. ASTM C1115: Specification for Dense Elastomeric Silicone Rubber Gaskets and Accessories.
10. ASTM C1172: Specification for Laminated Architectural Flat Glass.

11. ASTM E119: Test Methods for Fire Tests of Building Construction.
12. ASTM E152: Methods of Fire Tests of Door Assemblies.
13. ASTM E163: Fire Tests of Window Assemblies.
14. ASTM E1300: Standard Practice for Determining Load Resistance of Glass in Buildings.
15. ASTM E1886: Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials
16. ASTM E1996: Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes
17. ASTM E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation.

C. CPSC 16 CFR Part 1201: Safety Standard for Architectural Glazing Materials.

D. FGMA Glazing Manual.

E. IGCC (Insulating Glass Certification Council).

F. IGMA (Insulating Glass Manufacturers Alliance) - TM 3000-90: Vertical Glazing Guidelines.

G. Underwriters Laboratories - BP-1154.

H. UL 972 - Standard for Burglary - Resisting Glazing Material.

1.5. PERFORMANCE REQUIREMENTS

A. General: Provide glazing systems that are produced, fabricated, and installed to withstand normal thermal movement, wind loading, and impact loading (where applicable), without failure including loss or glass breakage attributable to the following: defective manufacture, fabrication, and installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; and other defects in construction.

B. Glass Design: Glass thicknesses indicated on Drawings or in this Section are for detailing only. Confirm glass thicknesses by analyzing Project loads and in-service conditions. Provide glass lites for the various size openings in the thicknesses and strengths (annealed or heat-treated) to meet or exceed the following criteria:
1. Minimum glass thickness, nominally, of lites in exterior walls is 1/4 inch.
2. Tinted and heat-absorbing glass thicknesses for each tint indicated are the same throughout Project.
3. Minimum glass thicknesses of lites, whether composed of annealed or heat-treated glass, are selected so the worst-case probability of failure does not exceed the following:

    a. 8 lites per 1000 for lites set vertically or not over 15 degrees off vertical and under wind action. Determine minimum thickness of monolithic annealed glass according to ASTM E1300. For other than monolithic annealed glass, determine thickness per glass manufacturer's standard method of analysis including applying adjustment factors to ASTM E1300 based on type of glass.

C. Normal thermal movement results from the following maximum change (range) in ambient and surface temperatures acting on glass-framing members and glazing components. Base engineering calculation on materials' actual surface temperatures due to both solar heat gain and nighttime sky heat loss.
1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

1.6. SUBMITTALS

A. Submit in accordance with Section 01 3300:
   1. Manufacturer's Data – Glazing:

      a. Submit manufacturer's specifications and installation instructions for each type of glass required.
      b. Include test data substantiating that glass complies with specified requirements.

   2. Manufacturer's Data - Glazing Materials: Submit manufacturer's specifications and installation instructions for each type of glazing sealant and compound, gasket and associated miscellaneous material required. Include manufacturer's published data, or letter of certification, or certified test laboratory report indicating that each material complies with the requirements and is suitable for the applications shown.

   3. Samples for verification:

      a. Glazing: Submit 12" square samples of each type of glass indicated except for clear monolithic glass products.

   4. Compatibility test report from manufacturer of insulating glass edge sealant indicating that glass edge sealants were tested for compatibility with other glazing materials including sealants, glazing tape, gaskets, setting blocks, and edge blocks.
   5. Product test reports for each type of glazing sealant and gasket indicated, evidencing compliance with requirements specified.
   6. Certificates: Fabricator certification for argon filled insulated glazing units in accordance with Quality Assurance article in this Section.

B. Submit in accordance with Section 01 7700:

   1. Maintenance data for glass and other glazing materials to include in Operating and Maintenance Manual specified in Division 01.

1.7. QUALITY ASSURANCE

A. Manufacturer and Fabricator Qualifications:
   1. Manufacturers shall be producers of the specified products for this project for a minimum of five years prior to the release date of these contract documents. Fabricators shall be producers of the specified products for this project for a minimum of five years prior to the release date of these contract documents.
   2. Consistency and quality of the finished products are sought. Whenever the fabricated products are used, the Fabricator and Installer shall arrange to make all fabricated products from the same Primary Manufacturer's batch or order to assure consistent color and quality throughout the project.
   3. Argon Filled Insulated Glazing Units: Fabricator shall be IGCC/IGMA Certified for argon fill and perform argon testing at an IGCC/IGMA accredited laboratory at least annually. All argon filled units shall be permanently marked with this certification.

B. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, except where more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
   1. Glass Association of North America (GANA) Publications: "Glazing Manual" and "Laminated Glazing Reference Manual".
   2. AAMA Publications: AAMA TIR-A7 "Sloped Glazing Guidelines" and "Glass Design for Sloped Glazing."

3. IGMA Publications: TM-3000 “North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial & Residential Use” and TB-3001 “Guidelines for Sloped Glazing.”

C. Safety Glass: Products complying with 16 CFR Part 1201.
   1. Where safety glazing is indicated or required, provide each piece of safety glass permanently marked with certification label of Safety Glazing Certification Council (SGCC) or other certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer’s name, type of glass, thickness, and safety glazing standard with which glass complies.

D. Laminated Glass: When setting laminated glass in their frames, provide sealants that are compatible with the glass/interlayer. Incompatible sealants may cause progressive and unacceptable edge delamination or the development of cloudiness within the laminate lite and will be cause for rejection.

E. Fire Protection-Rated Glazing Labeling: Permanently mark fire-protection-rated glazing with certification label of a testing agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer’s name, test standard, whether glazing is for use in fire doors or other opening, whether or not glazing passes hose-stream test, whether or not glazing has a temperature rise rating of 450 deg F, and the fire-resistance rating in minutes.

F. Fire-Resistive Glazing Products for Door Assemblies: Products identical to those tested per ASTM E152, labeled and listed by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

G. Fire-Resistive Glazing Products for Window Assemblies: Products identical to those tested per ASTM E163, labeled and listed by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

H. Insulating Glass Certification Program: Provide insulating glass units permanently marked either on spacers or at least one component lite of units with appropriate certification label of inspecting and testing agency indicated below:
   1. Insulating Glass Certification Council (IGCC).
   2. Associated Laboratories, Inc. (ALI).
   3. National Certified Testing Laboratories (NCTL).

I. Glazier Qualifications: Engage an experienced glazer who has completed glazing similar in material, design, and extent to that indicated for Project with a record of successful in-service performance.

J. Single-Source Responsibility for Glass: Obtain glass from one source for each product indicated below:
   1. Primary glass of each (ASTM C1036) type and class indicated.
   2. Heat-treated glass of each (ASTM C1048) condition indicated.
   3. Laminated glass of each (ASTM C1172) kind indicated.
   4. Insulating glass of each construction indicated.

K. Single-Source Responsibility for Glazing Accessories: Obtain glazing accessories from one source for each product and installation method indicated.

L. Pre-Installation Conference: Conduct pre-installation meeting including the Installer and Installers of any work receiving glazing, the General Contractor, and the Architect. The meeting will verify project requirements, schedule, substrate conditions, manufacturer’s installation instructions, and manufacturer’s warranty requirements.

1.8. DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials to comply with manufacturer’s directions and as needed to prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.
   1. Where insulating glass units will be exposed to substantial altitude changes, comply with insulating glass fabricator’s recommendations for venting and sealing to avoid hermetic seal ruptures.

1.9. PROJECT CONDITIONS

A. Environmental Conditions: Do not proceed with glazing when ambient and substrate temperature conditions are outside the limits permitted by glazing materials manufacturer or when glazing channel substrates are wet from rain, frost, condensation, or other causes.
   1. Install liquid sealants at ambient and substrate temperatures above 40 deg F.

B. Measurement Procedures: Glass products shall be field-measured from the assembled frames by the furnishing and installing technicians after framing is installed on-site unless rough openings, frame sizes, and glass have been predetermined. When it has been determined by the contractor that predetermined glass sizes are desired to meet the project schedule, it shall be the responsibility of the contractor to guarantee that the required opening sizes will be constructed, in accordance with the reviewed shop drawings.

1.10. WARRANTY

A. General: Warranties specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

B. Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer's standard Form 1n which coated-glass manufacturer agrees to replace coated-glass units that deteriorate within specified warranty period. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.
   1. Warranty Period: Manufacturer’s standard but not less than 5 years after date of Substantial Completion.

C. Manufacturer's Special Warranty on Insulating Glass: Manufacturer's standard Form 1n which insulating-glass manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.
   1. Warranty Period: Manufacturer’s standard but not less than 10 years after date of Substantial Completion.

2. PRODUCTS

2.1. GLASS PRODUCTS, GENERAL

A. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass lites in thicknesses as needed to comply with requirements indicated.

1. Thickness of Tinted Glass: Provide same thickness for each tint color indicated throughout Project.

B. Strength: Where float glass is indicated, provide annealed float glass, Kind HS heat-treated float glass, or Kind FT heat-treated float glass as needed to comply with "Performance Requirements" Article. Where heat-strengthened glass is indicated, provide Kind HS heat-treated float glass or Kind FT heat-treated float glass as needed to comply with "Performance Requirements" Article. Where fully tempered glass is indicated, provide Kind FT heat-treated float glass.

C. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:

1. For monolithic-glass lites, properties are based on units with lites 1/4” thick.
2. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.
3. U-Factors: Center-of-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F.
4. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
5. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

2.2. GLASS PRODUCTS

A. Float Glass: ASTM C1036, Type I, Quality-Q3, Class 1 (clear) unless otherwise indicated.

B. Heat-Treated Float Glass: ASTM C1048; Type I; Quality-Q3; Class 1 (clear) unless otherwise indicated; of kind and condition indicated.
1. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed unless otherwise indicated.
2. For uncoated glass, comply with requirements for Condition A.
3. For coated vision glass, comply with requirements for Condition C (other coated glass).

C. Low-E Coated Glass: Low-emissivity transparent coating consisting of microscopically thin, metal oxide layers designed to decrease heat transfer through the glazing. Unless specified elsewhere in the Contract Documents, the coating may be applied by either pyrolytic or vacuum deposition (sputter-coating) process and applied on either the second or third surface of insulating glass units as required to meet the performance requirements in this Section.
1. Use of Low-E coatings on the #4 surface of glazing shall not be permitted.

2.3. INSULATING GLASS

A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E2190, and complying with other requirements specified.
1. Sealing System: Dual seal, with manufacturer's recommended primary and secondary seal materials.
2. Argon Fill: Argon filled units shall meet the following requirements:

a. Contain not less than 90% argon.
b. Fabricator shall be IGCC/IGMA Certified for argon fill and perform argon testing at an IGCC/IGMA accredited laboratory at least annually. All argon filled units shall be permanently marked with this certification.

3. Spacer: Manufacturer's standard warm-edge technology spacer material and construction.

B. Glass: Comply with applicable requirements in "Glass Products" Article as indicated by designations in "Insulating-Glass Types" Article at the end of this Section.

2.4. GLAZING GASKETS

A. Dense Compression Gaskets: Molded or extruded gaskets of profile and hardness required to maintain watertight seal, made from one of the following:
1. EPDM complying with ASTM C 864.
2. Silicone complying with ASTM C 1115.
3. Thermoplastic polyolefin rubber complying with ASTM C 1115.

B. Soft Compression Gaskets: Extruded or molded, closed-cell, integral-skinned EPDM, silicone, or thermoplastic polyolefin rubber gaskets complying with ASTM C 509, Type II, black; of profile and hardness required to maintain watertight seal.
1. Application: Use where soft compression gaskets will be compressed by inserting dense compression gaskets on opposite side of glazing or pressure applied by means of pressure-glazing stops on opposite side of glazing.

2.5. GLAZING SEALANTS

A. General: Provide products of type indicated, complying with the following requirements:
1. Applications: The sealants specified in this Section shall be used for installation of glazing. These sealants are not acceptable for use at the perimeter of windows and other glazed framing systems; sealants for use at the perimeters of windows and other glazed framing systems are specified in Section 07 9200 – Joint Sealants.
2. Compatibility: Provide glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
3. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
4. Elastomeric Glazing Sealant Standard: Provide manufacturer's standard chemically curing, elastomeric sealants that comply with ASTM C920 and other requirements indicated for each elastomeric glazing sealant, including those referencing ASTM C920 classifications for Type, Grade, Class and Uses related to exposure and joint substrates.
5. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer’s full range.

B. Glazing Sealants for Fire-Rated Glazing Products: Products that are approved by testing agencies that listed and labeled fire-resistant glazing products with which they are used for applications and fire-protection ratings indicated.

2.6. GLAZING TAPES

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100% solids, elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C 1281 and AAMA 800 for products indicated below:
1. AAMA 804.3 tape, where indicated.
2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.

3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

B. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:
   1. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
   2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

2.7. MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

D. Spacers: Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.

E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

F. Cylindrical Glazing Sealant Backing: ASTM C1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

G. Perimeter Insulation for Fire-Resistive Glazing: Product that is approved by testing agency that listed and labeled fire-resistant glazing product with which it is used for application and fire-protection rating indicated.

2.8. FABRICATION OF GLAZING UNITS

A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

B. Exposed Glazing Edges:

   1. Butt-Glazed Lites: Clean-cut or flat-grind vertical edges of butt-glazed monolithic lites to produce square edges with slight chamfers at junctions of edges and faces.
   2. Other: Grind smooth and polish exposed glass edges and corners.

3. EXECUTION

3.1. EXAMINATION

A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
   1. Manufacturing and installation tolerances, including those for size, squareness, offsets at corners.

2. Presence and functioning of weep systems.
3. Minimum required face or edge clearances.
4. Effective sealing between joints of glass-framing members.

B. Do not proceed with glazing until unsatisfactory conditions have been corrected.

3.2. PREPARATION

A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings that are not firmly bonded to substrates.

B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that will leave visible marks in the completed work.

3.3. GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, except where more stringent requirements are indicated, including those in referenced glazing publications.

B. Adjust glazing channel dimensions as required by Project conditions during installation to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.

D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction sealant-substrate testing.

E. Install elastomeric setting blocks in sill rabbets, sized and located to comply with referenced glazing standard, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.

F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

G. Provide spacers for glass sizes larger than 50 united inches (length plus height) as follows:
1. Locate spacers inside, outside, and directly opposite each other. Install correct size and spacing to preserve required face clearances, except where gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and comply with system performance requirements.
2. Provide 1/8” minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.

H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

I. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.

J. Set glass lites with proper orientation so that coatings face exterior or interior as specified.

K. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when installation is subjected to movement.

L. Square cut wedge-shaped gaskets at corners and install gaskets in manner recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended by gasket manufacturer.

3.4. TAPE GLAZING

A. Position tapes on fixed stops so that when compressed by glass their exposed edges are flush with or protrude slightly above sightline of stops.

B. Install tapes continuously but not in one continuous length. Do not stretch tapes to make them fit opening.

C. Where framing joints are vertical, cover these joints by applying tapes to heads and sills first and then to jambs. Where framing joints are horizontal, cover these joints by applying tapes to jambs and then to heads and sills.

D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.

E. Do not remove release paper from tape until just before each glazing unit is installed.

F. Apply heel bead of elastomeric sealant.

G. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

H. Apply cap bead of elastomeric sealant over exposed edge of tape.

3.5. GASKET GLAZING (DRY)

A. Fabricate compression gaskets in lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.

B. Secure compression gaskets in place with miter cut joints located at corners to compress gaskets producing a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.

C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.

D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.

E. Install gaskets so they protrude past face of glazing stops.

3.6. SEALANT GLAZING (WET)

A. Install continuous spacers, or spacers combined with cylindrical sealant backing, between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.

B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.

C. Tool exposed surfaces of sealants to provide a substantial wash away from glass. Install pressurized gaskets to protrude slightly out of channel to eliminate dirt and moisture pockets.

3.7. PROTECTION AND CLEANING

A. Protect exterior glass from breakage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.

B. Protect glass from contact with contaminating substances resulting from construction operations including weld splatter. If, despite such protection, contaminating substances do come into contact with glass, remove them immediately as recommended by glass manufacturer.

C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for build-up of dirt, scum, alkali deposits, or stains, and remove as recommended by glass manufacturer.

D. Remove and replace glass that is broken, chipped, cracked, abraded, or damaged in any way, including natural causes, accidents and vandalism, during construction period.

E. Wash glass on both faces in each area of Project not more than 4 days prior to date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended by glass manufacturer.

4. GLAZING SCHEDULE

4.1. GENERAL

A. Safety Glazing:
1. Safety glazing complying with 16 CFR Part 1201 shall be provided where indicated, where required by code, and in the following conditions:

a. All glazing in doors.
b. Glazing within a 24” radius of either door jamb where the bottom edge of the glazing is less than 60” above the walking surface.
c. Glazing that meets all of the following conditions:

1) Individual pane is greater than 9 square feet.
2) Bottom edge of glazing is less than 18” above the floor.
3) Top edge of glazing is greater than 36” above the floor.
4) Walking surfaces within 36” horizontally of the plane of the glazing.

5) Exception: If the glass is insulating glass or multiple pane glazing where the bottom edge of the glazing is 25 feet or more above any grade, roof, or walking surface, then it does not need to be safety glazing.

d. Glazing adjacent to stairways, landings, and ramps when the bottom edge of the glazing is less than 60” above the walking surface.

4.2. MONOLITHIC-GLASS TYPES

A. Glass Type GL-1 Clear Tempered glass.
1. Thickness: 1/4”
2. Provide safety glazing labeling.

4.3. INSULATING-GLASS TYPES

A. Glass Type [GL-2]: Low-E-coated, tinted insulating glass.
1. Overall Unit Thickness: 1 inch
2. Thickness of Each Glass Lite 1/4”
3. Outdoor Lite: Tinted fully tempered float glass compliant with CPSC 16 CFR 1201.
4. Interspace Content: Air
5. Indoor Lite: Clear tempered float glass compliant with CPSC 16 CFR 1201.
6. Low-E Coating: Pyrolytic or sputtered on second or third surface.
7. Visible Light Transmittance: As indicated on A401
8. Winter Nighttime U-Factor: As indicated on A401
9. Summer Daytime U-Factor As indicated on A401
10. Solar Heat Gain Coefficient: As indicated on A401.
11. Provide safety glazing labeling.

B. Glass Type GL-3: Low-E-coated, tinted insulating glass.
1. Overall Unit Thickness: 1 inch
2. Thickness of Each Glass Lite 1/4”
3. Outdoor Lite: Tinted fully tempered float glass compliant with CPSC 16 CFR 1201.
4. Interspace Content: Argon
5. Indoor Lite: Clear tempered float glass compliant with CPSC 16 CFR 1201.
6. Low-E Coating: Pyrolytic or sputtered on second or third surface.
7. Visible Light Transmittance: As indicated on A401
8. Winter Nighttime U-Factor: As indicated on A401
9. Summer Daytime U-Factor As indicated on A401
10. Solar Heat Gain Coefficient: As indicated on A401.

END 08 8000

M^BL M^cKEE ENVIRONMENTAL, INC.
430 Grimm Road, Congerville, Illinois 61729
(309) 965-2934 or (309) 275-1900 {Cell}

February 29, 2024

Mr. Mike Schone, Maintenance Supervisor
Tazewell County
101 S. Capital Street
Pekin, Illinois 61554

RE: Limited Asbestos Bulk Sample PLM Results
Courthouse Building: Window Replacement Project
Window Caulk; Exterior and Interior
MEI Project # 24-5477g1

Dear Mike:

Pursuant to your request, McKee Environmental, Inc. (MEI) performed limited bulk sampling and analysis of readily accessible suspect asbestos containing Window Caulk at exterior and interior locations you selected because of planned window replacement project at the Courthouse, 342 Court St., Pekin, Illinois. The undersigned, who is an IEPA accredited and IDPH Licensed Asbestos Inspector, collected 11 bulk samples on February 13, 2024 and sent them for Polarized Light Microscopy (PLM) analysis. The laboratory, which is NVLAP accredited, analyzed the samples by EPA Method 600/R-93/116 and found the following PLM results (see Table below and attached Laboratory PLM Analysis Report).

Sample No.	Date	Description	Location	Lab Reported PLM Asbestos Result
MMA 1-3	2/13/24	**Caulk** (gray), at stone wall & aluminum	**Exterior, Aluminum Windows**	**ACM** (2% chrysotile)
MMB 1-3	2/13/24	Caulk, on windows (aluminum at joints)	Exterior, on Windows, joints/seams	None Detected
MMC 1-3	2/13/24	Caulk, (white/clear)	Interior Windows, 1st Fl. N. side	None Detected
MMD 1-3	2/13/24	Caulk (brown/tan)	Interior Windows, 2nd Fl. S. side	None Detected

* NOTE: McKee Environmental Inc. recommends having representative samples of homogeneous areas analyzed by Transmission Electron Microscopy (TEM) methods for those samples analyzed by PLM that result in asbestos minerals in amounts of greater than zero percent (0%) "none detected" and less than or equal to ten percent (10%). To confirm PLM results, TEM analytical methods should also be utilized for Homogeneous Areas that contain organic binders (e.g., flooring, roofing, adhesives, mastics, etc.) and were initially determined negative (none detected) by PLM methods for asbestos content.

We understand that the windows will be removed and replaced in the near future. As you are likely aware, any disturbance of asbestos-containing building materials (ACBM) or presumed ACBM during interior maintenance, renovation or demolition activities must be performed by qualified and IDPH licensed personnel and according IDPH, IEPA and OSHA regulations.

McKee Environmental, Inc. appreciates the opportunity to assist you in providing a safe and healthful work environment for our community. Should you have any questions, please contact the undersigned at your earliest convenience.

Respectfully,

McKEE ENVIRONMENTAL, INC.

Brad L. McKee

Brad L. McKee, CIH
President
Attachment

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

McKee Environmental, Inc.
430 Grimm Road
Congerville, IL 61729

Attn: Brad McKee
Customer Project: Tazewell County Courthouse, Window Re
Reference #: CAL24021449AS Date: 02/28/24

Analysis and Method

Summary of polarized light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of a stereomicroscope. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may contain trace amounts of actinolite/tremolite. When not detected by PLM, these samples should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may contain a regulated asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Since allowable variation in quantification of samples close to 1% is high, <1% may be reported. Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos or "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses or hold a degree in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one these disciplines is preferred, but not required. Extensive in-house training programs are used to augment the educational background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tazewell County Courthouse, Window Replacement **CA Labs Project #:** CAL24021449AS

Laboratory Sample ID	Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
15926	MMA2	*MMA2-1*	***Caulk**/ gray sealant with debris*	***2% Chrysotile***	***gray sealant with debris***

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

This report relates to the items tested as received. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info:
McKee Environmental, Inc.
430 Grimm Road
Congerville, IL 61729

Attn: Brad McKee

Phone # 309-275-1900
Fax #

Customer Project:
Tazewell County Courthouse, Window Replacement

Turnaround Time:
5 Days

CA Labs Project #:
CAL24021449AS

Date: 2/28/2024
Samples Rec'd: 2/22/24 10:30AM
Date Of Sampling: 2/13/2024
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
15925	MMA1		*MMA 1-1*	***Caulk**/ gray sealant*	*y*	***None Detected***		100% qu,gy,bi
15926	MMA2		*MMA 2-1*	***Caulk**/ gray sealant with debris*	*n*	***2% Chrysotile***		98% qu,gy,bi,ot
15927	MMA3		*MMA 3-1*	***Caulk**/ gray sealant with debris*		*Positive Stop*		
15928	MMB1		*MMB 1-1*	***Caulk**/ gray sealant*	*y*	***None Detected***		100% qu,gy,bi
15929	MMB2		*MMB 2-1*	***Caulk**/ gray sealant*	*y*	***None Detected***		100% qu,gy,bi
15930	MMB3		*MMB 3-1*	***Caulk**/ gray sealant*	*y*	***None Detected***		100% qu,gy,bi
15931	MMC1		*MMC 1-1*	***Caulk**/ tan sealant*	*y*	***None Detected***		100% qu,gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

John Monaco
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info:
McKee Environmental, Inc.
430 Grimm Road
Congerville, IL 61729

Attn: Brad McKee

Phone # 309-275-1900
Fax #

Customer Project:
Tazewell County Courthouse, Window Replacement

Turnaround Time:
5 Days

CA Labs Project #:
CAL24021449AS

Date: 2/28/2024
Samples Rec'd: 2/22/24 10:30AM
Date Of Sampling: 2/13/2024
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
15932	MMC2		*MMC 2-1*	***Caulk**/ tan sealant*	*y*	***None Detected***		100% qu,gy,bi
15934	MMD1		*MMD 1-1*	***Caulk**/ brown sealant*	*y*	***None Detected***		100% qu,gy,bi
15935	MMD2		*MMD 2-1*	***Caulk**/ brown sealant*	*y*	***None Detected***		100% qu,gy,bi
15936	MMD3		*MMD 3-1*	***Caulk**/ brown sealant*	*y*	***None Detected***		100% qu,gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

John Monaco
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH

525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • www.dph.illinois.gov

BRAD L MCKEE
430 GRIMM ROAD
CONGERVILLE, IL 61729

3/3/2023

ASBESTOS PROFESSIONAL LICENSE ID NUMBER: 01758

Enclosed is your Asbestos Professional License. Please note the expiration date on the card and in the image depicted below.

COPY OF THE ASBESTOS PROFESSIONAL LICENSE

Front of License

IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH

ASBESTOS PROFESSIONAL LICENSE

ID NUMBER	ISSUED	EXPIRES
100 - 01758	3/3/2023	05/15/2024

BRAD L MCKEE
430 GRIMM ROAD
CONGERVILLE, IL 61729
Environmental Health



Back of License

ENDORSEMENTS	TC EXPIRES
INSPECTOR	2/1/2024
PROJECT DESIGNER	2/2/2024
MANAGEMENT PLANNER	2/1/2024
PROJECT MANAGER	8/27/2023
AIR SAMPLING PROFESSIONAL	

Alteration of this license shall result in legal action
This license issued under authority of the State of Illinois Department of Public Health
This license is valid only when accompanied by a valid training course certificate.

If you have any questions or need further assistance, contact the Asbestos Program at (217)782-3517 or fax (217)785-5897.

Our WEB address is: dph.illinois.gov/topics-services/environmental-
EMAIL Address: dph.asbestos@illinois.gov

IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH

ASBESTOS PROFESSIONAL LICENSE

ID NUMBER	ISSUED	EXPIRES
100 - 01758	3/3/2023	05/15/2024

BRAD L MCKEE
430 GRIMM ROAD
CONGERVILLE, IL 61729
Environmental Health



PROTECTING HEALTH, IMPROV
Nationally Accredited by PHAB

The Board for Global EHS Credentialing® (BGC®)

through its vested authority hereby confirms that

Brad McKee

has met all applicable requirements such as education, experience, examination, and on-going maintenance, set forth through the BGC's American Board of Industrial Hygiene® (ABIH®) credentialing division for certification in Comprehensive Industrial Hygiene Practice and is thereby conferred the credential of

Certified Industrial Hygienist® (CIH®)

The aforenamed individual is given all rights, privileges, and responsibilities as both a diplomate of the BGC and holder of this credential, provided that it is neither suspended nor revoked and is renewed annually. Moreover, the holder must meet all recertification requirements, including the obligation to practice ethically as prescribed by the BGC.

Certification Number: CIH-CP 7664
Award Date: June 19, 1998
Expiration Date: December 01, 2028

Subena Colligan

Subena Colligan, CIH, CSP
Chair of the Board of Directors

Scan QR code or visit GoBGC.org/Verify for information.

Leslie Long

Leslie Long, Interim CEO

Project Name: **Tazewell County Justice Center Annex Project**
Report: **Owner's Contingency Spent To Date**
Date: November 5, 2026
Fund Project is Budgeted In: CIP Fund

Owner's Contingency on Project (2.5%): $ 890,386.00

Change Order Date:	Description:	Estimate, Pending or Final	Cost:	Notes
9.10.25	PR#1 - City of Pekin project review comments	Final	5,831.06	relocate fire hydrant & NE corner of site; adjmt to parking curbs in main lot & along Elizabeth St; adjmt to light duty pavement & sidewalk; catch basin location adjmts; elevation modification to civil plans; addition of UL924 emergency relays in lighting pkg; emergency lighting modifications
9.18.25	Asbestos removal @ Times Building	Final	32,598.25	removal of asbestos from Times Bldg prior to demolition
9.26.25	PR #2 Structural Steel Framing Modification - **COMBINED WITH PR #3 BELOW**	Final	35,506.29	added Pier 4 details for concrete pier; adjusted East foundation wall location; changed multiple pier types from P1 to P4; modified dimensions; increased beam sizes on NE section of bldg w/ dimensional changes; increased bar sizing in wall sections
10.1.25	PR #3 Elevator Shaft Adjustments - **COMBINED WITH PR #2 ABOVE**			changing wall types in front of elevator at entry pt to accommodate elevator requirements; dimensional changes; modification to the size of CMU elevator shafts; changing of elevator concrete shaft walls
10.16.25	PR #4 Relocation of wall between rooms BC03 & BB46	Final	no cost	dimensional adjustment to make facilities mgmt office larger and Probation Director's office smaller - slightly adjusts flooring, ceilings & walls
11.19.25	PR #5 Electrical **VE** (Credit Change) - **VE reduction of $120,480** **VE will not be added back into contingency; cost reduction is included in contract price**	Final	N/A	**VE** this will **not** be added back into contingency since it is a VE item. This cost reduction is already included in the contract price as we committed to the VE items that would result in this reduction already

Change Order Date:	Description:	Estimate, Pending or Final	Cost:	Notes
11.19.25	PR #6 Stair Shaft 5 Adjustments	Final	2,002.60	adjusting wall of stair shaft by a few inches; drawing, drafting & wall modifications
12.15.25	PR #7 Mechanical **VE** Changes (Credit Change) - **VE reduction of $192,275** **VE will not be added back into contingency; cost reduction is included in contract price**	Final	N/A	CREDIT - to include electrical, framing, steel, dry wall changes. VE items agreed to by the County; VE this will not be added back into contingency since it is a VE item. This cost reduction is already included in the contract price as we committed to the VE items that would result in this reduction. Mechanical & wiring modifications
1.7.26	PR #8 Architectural **VE** (Credit Change) - **VE reduction of $504,947.36)** **VE will not be added back into contingency; cost reduction is included in contract price**	Final	N/A	CREDIT due ot architectural VE times agreed to by the County; VE this will not be added back into contingency since it is a VE item. This cost reduction is already included in the contract price as we committed to the VE items that would result in this reduction. Modify & remove RTU screens, security ceilings, change gate types, millwork VE, blind modificaitons
1.9.26	PR #9 Mechanical Coordination	Final	9,678.02	miscellaneous plumbing & mechanical modifications
5.26.26	PR #10 Architectural Coordination	Final	53,091.36	miscellaneous architectural modifications to window openings, roofing, wall-ttype, & window shades for project
1.19.26	project adjustment - RPZ from 6" to 8"	Final	8,579.63	change in size of RPZ fixtures - fm 6" to 8"; RPZ = Reduced Pressure Zone
7.20.26	PR #12 R2 - Access panel clarification	Final	3,018.20	change in ceiling panels and addition of security access panels
3.10.26	PR #13 - brick ledge steel plate/ concrete haunch	Final	10,304.08	includes rebar, epoxy, concrete, form materials & installation; adding a concrete haunch between gridlines 7 & 8.3 in leiu of steel plate

Change Order Date:	Description:	Estimate, Pending or Final	Cost:	Notes
3.20.26	PR #14 - Boiler & Water Heater Revisions	Final	37,883.93	the boiler and water heater originally speced for the project needed to be changed due to the needed flue length
3.23.26	PR #15 - electrical furniture coordination	Final	2,026.23	added recepticals - by Foster Jacob
5.4.26	PR #17 - depressed slab clarification	**PENDING**	TBD	
6.2.25	PR #18 - grand jury room clarifications; converting space held for grand jury room #3 to space for 3 offices	Final	14,499.05	asking about addt'l cost; I believe there should be some cost decrease coming as well with this change due to the elimination of bathrooms, less expensive finished and furniture, etc.
7.16.26	PR #20 - BIM & RFI Coordination	Final	2,264.61	added data ports & soffit in 1E01
8.6.26	PR #21 R1, R2 - Enlarged center masonry shaft chase	Final	24,495.60	Exhaust fan 5 was upsized due to the divider wall shown below in the center shaft being shifted North. The divider wall was originally located further south; it was moved to make it constructible in the chase. Ef-5 is required by code because this is a refrigeration piping chase. It is required to be monitored by Entec, and they are providing refrigeration detectors that will energize the exhaust fan if refrigerant is detected in the chase.
8.6.26	PR #22 R1 - Existing Justice Center Modifications	Final	35,785.77	Owner requested modifications to the basement of the existing Justice Center/jail; adjustments to the doors, electrical (intercom, access controls & card readers) & finishes (paint)
8.10.26	PR #23 - Jury deliberation redesign	**ESTIMATE**	10,979.55	County requested redesign of jury deliberation space into thtee offices; includes associated mechanical, electrical, & audiovisual revisions
8.10.26	PR #24 R1 - Security desk adjustments	**ESTIMATE**	23,157.75	includes the accompanied mechanical, electrical, and technology sheets for the security desk adjusment

Change Order Date:	Description:	Estimate, Pending or Final	Cost:	Notes
8.10.26	PR #25 - Revised center shaft duct sizing	**ESTIMATE**	7,991.90	The fire dampers were included in the original design and had already been procured by CMI. In PR 25, 2/3 of the fire dampers were resized, because the size of the supply air trunks changed. The trunks were resized because there wasn't enough space in the chase to install the ducts shown in the design drawings.
8.11.26	RFI 115 - Courtroom pew end clarifications	**ESTIMATE**	3,477.06	change to the configuration of the pew ends for aesthetic purposes
8.19.26	PR #26 - Added exhaust fans on motor schedule	Final	15,452.57	The exhaust fans were in the original design. However, they were not added in the original motor schedule. The cost includes adding the starters and required wiring for exhaust fans 1-4 and 6-8.
8.24.26	PR #27 R1 - Drug testing lab changes (BB06)	**ESTIMATE**	2,404.35	adding back in the removed floating counter in Drug Testing Lab BB06 and relocating it outside of the toilet room BB08 and BB07
9.4.26	PR #28 - Conduit for exterior PV disconnect	**ESTIMATE**	4,062.00	addition of new conduit running from electrical room to exterior wall as required for future exterior PV disconnect as identified in RFI #121
9.4.26	PR #29 - Wall mounted stainless counters 1D01 & 1D02	**ESTIMATE**	4,860.08	adding a writing surface in the inmate holding space
9.8.26	PR #30 - Unit Heater Electrical Connections - added VFDs in BC06	**ESTIMATE**	20,758.58	clarified electrical connections for CUH-1, CUH-2, CUH-3, and UH-1 as identified in RFI #124. Also included are the added locations of the VFDs for AHU-2 and AHU-3 in the Mechanical Room BC06
8.28.26	Unforeseen underground obstructions	**PENDING**	TBD	
9.15.26	PR # 31 - Revised water main tap	**PENDING**	TBD	revised combined domestic and fire protection water main from 8" to 6" after coordination with fire protection drawings

Change Order Date:	Description:	Estimate, Pending or Final	Cost:	Notes
10.1.26	PR #33 - State's Attorney Revisions	**ESTIMATE**	7,299.36	Owner requested revision to the northeast corner of the State's Attorney office. The revisions consist primarily of room modifications (2A05 Meeting Room, 2C09 Breakrooom, 2C10 Office Manager, and 2C11 Chief ASA), removed rooms (2A01 Circulation and 2A04 Meeting/ Media Pooling), and added rooms (2C37 Office, and 2C38 Office). Also included are the adjustments to mechanical, electrical, technology, and audio visual as required for the revision.
9.25.26	PR #34 - Added access panels	**PENDING**	TBD	includes the Owner requested added access panels
10.5.26	PR #35 - Added outlets, monitor, wiring for future camera	**ESTIMATE**	17,273.30	includes the Owner requested outlets in storage rooms, monitor in facilities maintenance office, wiring for future owner provided camera in pre-trial
	PR #36 - Widmer furniture coordination	**PENDING**	TBD	power and data coordination with the Widmer's updated furniture
10.19.26	Austin sewer easement services	**ESTIMATE**	3,500.00	
Total Contingency Spent to Date:			**$ 398,781.18**	
ESTIMATED Remaining Contingency on Project Before Additions to Contingency:			$ 491,604.82	
Additions to Owner's Contingency Balance:				
2.2.26	PR #11 Removal of smoke curtain fm design - not required $79,067.74; not added to contingency as is is already assumed in the base contract	Final	N/A	CREDIT due to removal of smoke curtain fm design - not required per code; $79,067.74
3.24.26	Excess VE savings over agreed to amt of $809,775 (see VE details above)	Final	7,927.36	When contract was signed w/ PJH, it was determined that there needed to be $809,775 of VE savings found to bring the project cost in line with the agreed to budget. This has been accomplished with $7,927.36 in additional savings which is being added back to Owner's Contingency here.

Change Order Date:	Description:	Estimate, Pending or Final	Cost:	Notes
7.1.26	Security Desk glass & framing modifications per Wold	Final	6,852.00	eliminate bullet resistant frames around security desk from project
5.5.26	PR #16 - casework, plumbing fixtures & floor box - CREDIT TO PROJECT CONTINGENCY $10,586.5	Final	10,586.50	
6.8.26	PR #19 - LL BIM Clarifications	Final	1,725.00	Lower level - changes to corridor & data center due to ceiling changes
7.9.26	RFI 101 & SI 6 revisions	Final	1,301.00	changes to fire extinguisher cabinets & soap dispensers
9.22.26	PR #32 - Removed access panel between Courts/Media Room	**ESTIMATE**	1,488.00	removed access panel between the Media Rooms and Courtrooms
10.22.26	Additional credits - PR22	**ESTIMATE**	713.75	
ESTIMATED Remaining Contingency on Project:			**$ 522,198.43**	

PR = pricing request which can adjust cost up, down, or no change; can be the result of revised drawings

Project Name: **Tazewell County Justice Center Annex Project**
Report: **Contractor's Contingency Spent To Date**
Date: November 5, 2026
Fund Project is Budgeted In: CIP Fund

Contractor's Contingency on Project (2.5%): $ 890,386.00

Change Order Date:	Description:	Estimate or Final	Cost:
10.1.25	shoring up the wall along Elizabeth Street	Final	42,268.43
11.17.25	authorization of OT work for concrete, masonry, and steel erection work on the JCA to keep project on track as we head into the winter months - minimize weather delay losses and temporary heating costs for cold weather masonry and concrete work	**ESTIMATE**	50,000.00
1.12.26	additional shoring of Elizabeth Street	Final	4,673.00
1.29.26	additional funding needed to cover permit requirements through City of Pekin	Final	1,589.00
5.6.26	lower level DensGlas pre-rock top-out	Final	8,015.00
6.30.26	add window to mock up	Final	1,027.50
4.2.26	RFI 54 -Duct in Center of Shaft modifications (T&M not to exceed $46k)	**ESTIMATE**	46,000.00
7.14.26	Protection of duct insulation	Final	13,586.00
7.14.26	Main Level Densglass	Final	14,340.00
7.14.26	Mechanical Pit Densglass	Final	7,780.00

Total Contingency Spent to Date - ESTIMATE : $ 189,278.93

Remaining Contingency on Project - ESTIMATE: $ 701,107.07

Tazewell County
Capital Improvement Plan - Projects w/ PJ Hoerr as Project Manager
Updated November 5, 2026

Approved Budget for Capital Improvement Projects with PJ Hoerr as Project Manager in FY26 Budget Document CIP Plan	8,198,132.00
Cost Estimate for Projects Completed & Quoted to Date per Project Cost Tracker	3,363,300.00
Final or Quoted Cost for Projects Completed & Quoted to Date	3,012,659.09
Amount Under (Over) Cost Target to Date	350,640.91
Percentage Under Cost Target to Date	10.43%

Tazewell County

Capital Improvement Plan - Projects w/ PJ Hoerr as Project Manager

FY25 through FY30 Plan

Updated November 5, 2026

Actual Final Cost
Quoted Cost
Current Best Quote - In Process
Partial Cost

Category		*Funding Source*	*Project Budget per FY26 Budget Document*	*Cost*	*Amount Over (Under) Budget*	*PJ Hoerr Cost*	*Subcontractor Cost*	*Subcontractor*	*Project Status - complete, in process, etc.?*	*Other Quotes Received*
Courthouse - Facilities Improvements										
	Replace Windows & Doors	CIP Fund	1,207,000		(1,207,000.00)	-			pre-bid	
	Upgrade Electrical - Phase 2	CIP Fund	270,000	7,340.38	(262,659.62)	3,840.38	3,500.00	Foster Jacob	sporadic/ partial	
	Re-Key Doors	CIP Fund	32,300	81,794.00	49,494.00	34,209.00	47,585.00	S&S Builders Hardware Co.	quoted	
	Replace Circuit Clerk Service Counter & Countertop	CIP Fund	47,000	50,780.17	3,780.17	9,908.17	40,872.00	Benchmark $30,872 & Jacob Foster not to exceed $10k	complete; paid 9.2.26 $50,780.17	
	Replace Circuit Clerk Desks & Chairs	GF - Dept 100	50,000	49,988.52	(11.48)	2,736.56	47,251.96	Widmer - cooperative bid via OMNIA	in process - ordered	N/A
	Install Insulation in Courthouse	CIP Fund	26,000	35,547.82	9,547.82	4,284.82	31,263.00	Illinois Construction Group	Complete; paid 1.14.26 $35,547.82	Goley $22822, Dashco $33450
	Repair/Replace Flooring	CIP Fund	370,000		(370,000.00)	-				

Tazewell County

Capital Improvement Plan - Projects w/ PJ Hoerr as Project Manager

FY25 through FY30 Plan

Updated November 5, 2026

Actual Final Cost
Quoted Cost
Current Best Quote - In Process
Partial Cost

Category		*Funding Source*	*Project Budget per FY26 Budget Document*	*Cost*	*Amount Over (Under) Budget*	*PJ Hoerr Cost*	*Subcontractor Cost*	*Subcontractor*	*Project Status - complete, in process, etc.?*	*Other Quotes Received*
	Remodel Bathrooms	CIP Fund	432,000	14,256.56	(417,743.44)	14,256.56			planning	
	Patch & Paint Interior	CIP Fund	108,000	107,989.63	(10.37)	14,989.63	93,000.00	McClanahan Painting	quoted	T&M: McClanahan $103/hr = 5% labor & mat Midwest $104/hr + 15% mat Vogue $98/hr + 15% labor & mat
	Replace Lighting Fixtures (included with Upgrade Electical - Phase 2 project above)	CIP Fund	110,000		(110,000.00)	-				
	Reconfigure Space & Refresh Paint, Lighting & Floors in Public Defender's Offices in Courthouse	CIP Fund	350,000		(350,000.00)	-			planning	
	Refresh and Reconfigure New Juvenile Space (from Investigators) - changing to Traffic Office	CIP Fund	20,000		(20,000.00)	-				
	Clean & Seal Exterior Limestone	CIP Fund	120,000	50,982.06	(69,017.94)	2,102.48	48,879.58	Summit	complete	
	Resurface/Replace Exterior Stairs	CIP Fund	115,000		(115,000.00)	-				

Tazewell County

Capital Improvement Plan - Projects w/ PJ Hoerr as Project Manager

FY25 through FY30 Plan

Updated November 5, 2026

Actual Final Cost
Quoted Cost
Current Best Quote - In Process
Partial Cost

Category	*Funding Source*	*Project Budget per FY26 Budget Document*	*Cost*	*Amount Over (Under) Budget*	*PJ Hoerr Cost*	*Subcontractor Cost*	*Subcontractor*	*Project Status - complete, in process, etc.?*	*Other Quotes Received*
McKenzie Building - Facilities Improvements									
Re-Key Building	CIP Fund	32,000	63,036.51	31,036.51	27,771.51	35,265.00	S&S Builders Hardware Co	quoted	
Update Electrical Panels	CIP Fund	119,000	2,734.50	(116,265.50)	73.25	2,661.25		sporadic/ partial	
Replace Roof - combined w/ Justice Center Roof Replacement project to obtain best pricing	CIP Fund	budget moved to Justice Center section			-				
Replace Rooftop Exhaust Fans	CIP Fund	10,000	1,920.31	(8,079.69)		1,920.31	done in-house	complete	
Replace Rooftop Fresh Air Unit #1	CIP Fund	81,000	80,633.56	(366.44)	5,900.56	74,733.00	Standard Heating & Cooling		Mucciante & PIPCO both bid as a combined bid for the McK RTU (here) and JC exhaust fans
Convert to LED Lighting	CIP Fund	67,800	6,051.98	(61,748.02)	6,051.98		N/A	in process	
Replace Boiler #2	CIP Fund	85,000	93,772.74	8,772.74	5,292.74	88,480.00	Ruyle	complete; paid 5.27.26	DMI $98,312; O'Brien $145k; Standard H&C $147,123

Tazewell County

Capital Improvement Plan - Projects w/ PJ Hoerr as Project Manager

FY25 through FY30 Plan

Updated November 5, 2026

Actual Final Cost
Quoted Cost
Current Best Quote - In Process
Partial Cost

Category	*Funding Source*	*Project Budget per FY26 Budget Document*	*Cost*	*Amount Over (Under) Budget*	*PJ Hoerr Cost*	*Subcontractor Cost*	*Subcontractor*	*Project Status - complete, in process, etc.?*	*Other Quotes Received*
Repair/Replace Flooring	CIP Fund	450,000		(450,000.00)	-			planning	
Repaint Walls	CIP Fund	108,000	107,989.63	(10.37)	14,989.63	93,000.00	McClanahan Painting	quoted	T&M: McClanahan $103/hr = 5% labor & mat Midwest $104/hr + 15% mat Vogue $98/hr + 15% labor & mat
Replace Blinds	CIP Fund	54,000	84,503.73	30,503.73	15,473.73	69,030.00	Davis Blinds & Specialties	complete; paid 9.2.26	Williamson Blide & Drapery
Water Fountains with Bottle Fillers	CIP Fund	22,000	18,609.61	(3,390.39)	10,509.61	8,100.00	Dries Plumbing	complete; paid 10.14.26	Illini Plumbing $9879; GA Rich $11,500
Remove Granite from Walls - UPDATED TO SEALING OF GRANITE & PAINTING OVER IT	CIP Fund	125,000	54,542.75	(70,457.25)	7,387.97	47,154.78	Allied Construction Services, Inc.	quoted $51,284.77/ paid $3,257.98 for test area	T&M: McClanahan $103/hr = 5% labor & mat Midwest $104/hr + 15% mat Vogue $98/hr + 15% labor & mat
Remodel Bathrooms	CIP Fund	200,000		(200,000.00)	-			planning	

Tazewell County

Capital Improvement Plan - Projects w/ PJ Hoerr as Project Manager

FY25 through FY30 Plan

Updated November 5, 2026

Actual Final Cost
Quoted Cost
Current Best Quote - In Process
Partial Cost

Category	*Funding Source*	*Project Budget per FY26 Budget Document*	*Cost*	*Amount Over (Under) Budget*	*PJ Hoerr Cost*	*Subcontractor Cost*	*Subcontractor*	*Project Status - complete, in process, etc.?*	*Other Quotes Received*
Justice Center - Facilities Improvements									
Repair Shower Walls	CIP Fund	186,000	156,511.82	(29,488.18)	52,511.82	104,000.00	Midwest Commercial Coatings, Inc.	quoted	McClanahan Painting, Inc, $120,370 & Prime Coat Coating Systems $214,810
Repair Community Room Desk Veneer	CIP Fund	50,000	49,936.60	(63.40)	5,665.60	44,271.00	Benchmark	quoted	
Upgrade Master Controls Monitoring System	CIP Fund	916,000	520,570.38	(395,429.62)	90,542.26	430,028.12	Willoughby	quoted	Willoughby $210,024.12; I-Con $219,587.15 Acorn $353,637.00 all systems will need est $125k for data & est $25,004 plumbing - addt'l subs
Repair/Replace Roofing - Justice Center; includes Roof Replacement project for McKenzie Bldg (above) to obtain best pricing:									
Justice Center	CIP Fund	810,000	1,220,637.67	(93,637.67)	123,047.67	1,097,590.00	Kreiling Roofing	quoted; start date approx 9.1.26; completion by 12.31.26	Sterling $1,431,100, Western $1,467,000, Henson Robinson $1,500,075
McKenzie		317,000							
Replace Exhaust Fans	CIP Fund	87,000		(87,000.00)	-				
Replace Chairs in Community Room	CIP Fund	19,000	30,434.31	11,434.31	-	30,434.31	Widmer - cooperative state bid	ordered paid in full	in house; not thru PJH; used puchase contract w/ Widmer
Replace Flooring - Sheriff's Office & Community Room	CIP Fund	108,000		(108,000.00)	-			planning	
Replace Sally Port Doors	CIP Fund	50,000	21,877.97	(28,122.03)	4,190.32	17,687.65	Wayne Dalton	quoted	Mid Illini Doors $30,332.9; Crawford & Brinkman $18,400

Tazewell County

Capital Improvement Plan - Projects w/ PJ Hoerr as Project Manager

FY25 through FY30 Plan

Updated November 5, 2026

Actual Final Cost
Quoted Cost
Current Best Quote - In Process
Partial Cost

Category	*Funding Source*	*Project Budget per FY26 Budget Document*	*Cost*	*Amount Over (Under) Budget*	*PJ Hoerr Cost*	*Subcontractor Cost*	*Subcontractor*	*Project Status - complete, in process, etc.?*	*Other Quotes Received*
Pekin Campus Buildings and Grounds - General Refresh & Reconfiguration Including:		**859,032**	**4,928.92**	**(854,103.08)**	**4,928.92**	**-**			
Courthouse									
Courtroom Furniture Refresh	CIP Fund	included above							
General									
Courthouse/Pekin Campus Grounds Improvements	CIP Fund	included above							
General Conditions over multiple projects			4,928.92		4,928.92		N/A		
Landscaping & Grounds Lighting - CH, McK & JC	CIP Fund		N/A					out for bid	**NOT PJH PROJECT**
Other Projects	CIP Fund	included above							
Relocation & Renovation of VA Office	CIP Fund	70,000		(70,000.00)	-				
Pekin Campus - Grounds Improvements									
Repair/Replace Concrete Sidewalks	CIP Fund	95,000	92,910.50	(2,089.50)	11,015.50	81,895.00	Knapp Concrete	complete; paid 6.10.26	Knapp Concrete; Aupperle $73,618; Hein $81,426.39
Replace Flag Pole	CIP Fund	20,000	37,688.80	17,688.80	6,048.80	31,640.00	Knapp	complete	Aupperle $36,843 & Hein $39,642.78; cost of flag pole fm Flagpoles ETC $9,849.87
Report Total		**$ 8,198,132**	**$ 3,047,971**	**$ (5,337,436)**	**$ 477,729**	**$ 2,570,242**			
Projects Completed & Quoted To Date		**$ 3,363,300**	**$ 3,012,659**	**$ (350,641)**		**$ 3,047,971**	**Expense to Date**		