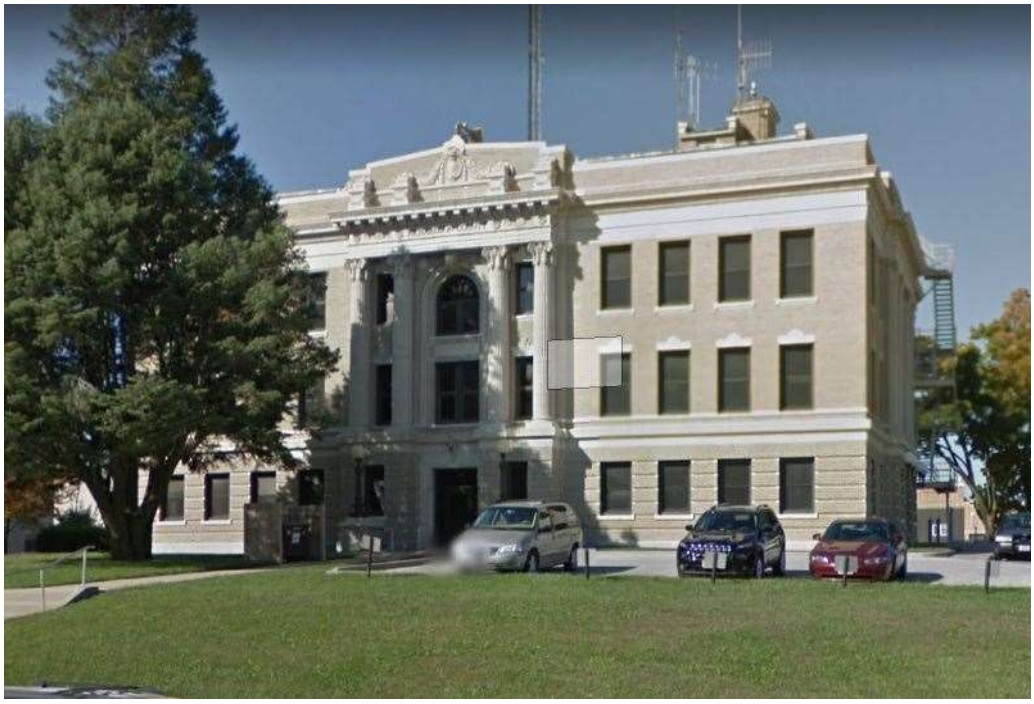
PROJECT MANUAL

DECEMBER 12th 2022



RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT

1700 STONE STREET
FALLS CITY, NEBRASKA 68355

PROJECT #222302

PLANNING ARCHITECTURE ENGINEERING
PROCHASKA & ASSOCIATES
INTERIORS & FACILITY MANAGEMENT

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SECTION 001116 - INVITATION TO BID

PART 1 - GENERAL

1.1 PROJECT INFORMATION

A. Notice to Bidders: Qualified bidders are invited to submit bids for Project as described in this Document according to the Instructions to Bidders.

B. Project Identification: Richardson County Courthouse Roof Replacement. Project Number 222302

1. Project Location: 1700 Stone Street, Falls City, Nebraska, 68355

C. Owner: Richardson County

1. Owner's Representative: Mary L. Eickhoff, Richardson County Clerk

D. Architect: Dave Bramow, Prochaska & Associates, 11317 Chicago Circle, Omaha, Nebraska 68154

E. Project Description: The Work under Base Bid consists of removing the existing single ply roofing & insulation on the Jail/Courtroom & Main Courthouse roof for installation of new adhered single ply roofing material and removal of the existing built-up roofing system on the elevator Penthouse for new single ply roofing system. Elastomeric roof coating material shall also be installed on all parapets and chimney stack roof. An Add Alternate price will be solicited for repainting the steel window frames/mullions at the Jail/Courtroom and elevator Penthouse walls, all levels the exterior existing emergency stair, stair to the Jail roof area and the wall mounted ladder to the Elevator Penthouse roof. This work may become a part of the Construction Contract, dependent upon a decision by the County.

F. Bids will be received for the following Work:

1. Single General Contract (all trades).

1.2 BID SUBMITTAL AND OPENING

A. Owner will receive sealed bids until the bid time and date at the location indicated below.

1. **Bid Date: January 24th, 2023.**
2. Bid Time: 11:00 a.m.. local time.
3. Location: Richardson County Courthouse, County Commissioners Room, Room #202, 1700 Stone Street, Falls City, Nebraska. Bids will be opened publicly and read aloud.

1.3 BID SECURITY

A. Bid security shall be submitted with each bid in the amount of 5 percent of the bid amount. No bids may be withdrawn for a period of 60 days after opening of bids. Owner reserves the right to reject any and all bids and to waive informalities and irregularities.

1.4 PREBID CONFERENCE

A. A prebid conference for all bidders will be held at 1700 Stone Street, Falls City Nebraska (site) on **January 19th, 2023 at 11:00 a.m.**, local time in the County Commissioners Room, Room #202. All prospective bidders are requested to attend.

B. Due to the possibility of having inclement weather on the above pre-bid conference date to physically have safe access to observe the existing roof conditions on the roof, we recommend scheduling a time for your site visit prior to the pre-bid meeting. Contact the County Clerk, Mary L. Eickhoff 402-245-2911, to schedule a time for roof access.

1.5 DOCUMENTS

A. Bidders shall examine carefully all contracts, documents and data provided for them on file. No plea of ignorance of the requirements of the contract documents will be accepted as a basis for any claim whatsoever for extra compensation.

B. Questions regarding the Bidding Documents shall be addressed to Dave Bramow, Prochaska & Associates, 11317 Chicago Circle, Omaha, Nebraska 68154; (402) 334-0755, Ext 304, e-mail: dbramow@prochaska.us.

C. Contract documents may be examined (but not obtained) at the following locations:

1. The office of Prochaska & Associates (A/E) 11317 Chicago Circle, Omaha, Nebraska
2. The Richardson County Courthouse, 1700 Stone Street, Falls City, Nebraska

D. Contract Documents may also be examined and purchased and obtained at the following plan rooms/printers. All costs for contract document production will be directly billed to the requesting company and not to the Owner/issuer of this bidding opportunity. Contact the printer for the cost associated with your request

- A&D Technical Supply Co., Inc., 4320 South 89th Street, Omaha, Nebraska 68137 (402-592-4950) website at www.adtechsupply.com
- Standard Digital Imaging, 4426 South 108th Street, Omaha, NE 68137 (800-642-8062) website at www.standarddigital.com
- Lincoln Builders Bureau, 5910 S 58th Street, Suite C, Lincoln, Nebraska 68516 (402-421-8332) website at www.buildersbureau.com

1.6 TIME OF COMPLETION AND LIQUIDATED DAMAGES

A. Bidders shall begin the Work on receipt of the Notice to Proceed and shall complete the Work within the Contract Time as stipulated in the Bid Form.

B. The time for completion of the work contemplated will be specified in the proposal and contract and it is understood that the completion of the work within the time specified is an essential part of this contract. If the Contractor finds it impossible to totally complete the work on or before the time for completion specified in the Contract, then, not less than ten (10) calendar days prior to the expiration of the stipulated time for completion, they may make written request to the Owner for an extension of time. They shall set forth fully in their request the reasons which they believe justify the granting of their request. If the Owner finds that the work was delayed because of conditions beyond the control of the Contractor or that the quantities of work done are in excess of the estimated quantities by an amount sufficient to warrant

additional time, they may grant an extension of time for completion to such date as appears reasonable and proper, which extension of time must be approved by the surety. The extended time for completion shall then be considered as in full force and affect the same as if it were the original time for completion.

C. Should the Contractor fail to totally complete the work within the time agreed upon in the Contract or within such extra time, as may have been allowed by extension, there may be deducted from any monies due or that may become due the Contractor, the sum set forth in the following schedule for each and every calendar day that the work shall remain uncompleted. This sum shall be considered and treated not as a penalty but as liquidated damages due to the Owner from the Contractor by reason of inconvenience to the public, added cost of engineering and supervision, maintenance of detours and other items which have caused an expenditure of public funds resulting from their failure to complete the work within the time specified in the Contract

D. The cost of liquidated damages of $500.00 per calendar day after the preset final completion date of the project as indicated on the Bid Form.

1.7 BIDDER'S QUALIFICATIONS

A. Bidders must be properly licensed under the laws governing their respective trades and be able to obtain insurance and bonds required for the Work. A Performance Bond, a separate Labor and Material Payment Bond, and Insurance in a form acceptable to Owner will be required of the successful Bidder.

END OF SECTION 001116

SECTION 002113 - INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.1 INSTRUCTIONS TO BIDDERS

A. The Contract will be prepared by the Architect using AIA Document A101 *Standard Form of Agreement between Owner and Contractor*.

END OF SECTION 002113

SECTION 004113 - BID FORM - STIPULATED SUM

PART 1 - GENERAL

1.1 BID INFORMATION

A. Bidder: _____.

B. Project Name: Richardson County Courthouse Roof Replacement

C. Project Location: 1700 Stone Street, Falls City, Nebraska, 68355

D. Owner: Richardson County

E. Architect: Prochaska & Associates.

F. Architect Project Number: P&A #222302

1.2 CERTIFICATIONS AND BASE BID

A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Prochaska & Associates and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. _____ Dollars ($_____).
2. The above amount may be modified by amounts indicated by the Bidder on the attached Document Section 004323 "Alternates Form."

1.3 BID GUARANTEE

A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within [**14**] Fourteen days after a written Notice of Award, if offered within [**60**] Sixty days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:

1. _____ Dollars ($_____).

B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 TIME OF CONSTRUCTION

A. The undersigned Bidder shall agree that construction will be totally completed within _____ calendar days (excluding Alternates) after “Notice To Proceed” is dated. The undersigned Bidder agrees hereby to commence the Work of the Contract Documents on the date the Notice to Proceed is issued.

1.5 ACKNOWLEDGMENT OF ADDENDA

A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum No. 1, dated _____.
2. Addendum No. 2, dated _____.
3. Addendum No. 3, dated _____.
4. Addendum No. 4, dated _____.

1.6 BID SUPPLEMENTS

A. The following supplements are a part of this Bid Form and are attached hereto.

1. Bid Form Supplement - Alternates.
2. Bid Form Supplement - Bid Bond Form (AIA Document A310-2010).

1.7 CONTRACTOR'S LICENSE

A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in Hartington, Nebraska, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

A. Respectfully submitted this ____ day of _____, 2022.

B. Submitted By:_____(Name of bidding firm or corporation).

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

E. Title:_____(Owner/Partner/President/Vice President).

F. Witnessed By:_____(Handwritten signature).

G. Attest:_____(Handwritten signature).

H. By:_____(Type or print name).

I. Title:_____(Corporate Secretary or Assistant Secretary).

J. Street Address:_____.

K. City, State, Zip:_____.

L. Phone:_____.

M. License No.:_____.

N. Federal ID No.:_____(Affix Corporate Seal Here).

END OF SECTION 004113

SECTION 004313 - BID SECURITY FORMS

PART 1 - GENERAL

1.1 BID FORM SUPPLEMENT

A. A completed bid bond form is required to be attached to the Bid Form.

1.2 BID BOND FORM

A. AIA Document A312-2010 "Bid Bond" is the recommended form for a bid bond. A bid bond acceptable to Owner, or other bid security as described in the Instructions to Bidders, is required to be attached to the Bid Form as a supplement.

B. Copies of AIA standard forms may be obtained from The American Institute of Architects; https://www.aiacontracts.org/; email: docspurchases@aia.org; (800) 942-7732.

END OF SECTION 004313

SECTION 004323 - ALTERNATES FORM

PART 1 - GENERAL

1.1 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

1.2 DESCRIPTION

A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment. The below alternates will not be added/accepted in the below referenced chronological order.

1. Alternate price given below shall include all subcontractor and miscellaneous fees to the Contractor's Fee.

B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."

C. The Bidder shall be responsible for determining from the Contract Documents the effects of each alternate on the Contract Time and the Contract Sum.

D. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within [**60**] days of the Notice of Award unless otherwise indicated in the Contract Documents.

E. Acceptance or non-acceptance of any alternates by the Owner shall have no effect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

1.3 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Repainting the steel window frames/mullions at the Jail/Courtroom and elevator Penthouse walls, all levels of the exterior existing emergency stair, stair to the Jail roof area and the wall mounted ladder to the Elevator Penthouse roof.

1. ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.

_____ Dollars ($_____).

Adjustment of (+ or -) Contract time _____ Days

1.4 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this ____ day of _____, 2023.

B. Submitted By:_____(Name of bidding firm or corporation).

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

E. Title:_____(Owner/Partner/President/Vice President).

END OF SECTION 004323

DIVISION 01

DIVISION 01

SECTION 011000 - SUMMARY

PART 1 - GENERAL

A. WORK COVERED BY CONTRACT DOCUMENTS

1. Project Identification: The Project consists of removal and replacement of the existing single ply roofing material along with an alternate to repaint some existing metal stairs on the Richardson County Courthouse.
2. Project Location:
   a) 1700 Stone Street, Falls City, Nebraska 68355.
   b) Owner: Richardson County.

3. Architect Identification: The Contract Documents, dated December 12th, 2022, were prepared for Project by Prochaska & Associates, 11317 Chicago Circle, Omaha, Nebraska 68154.

4. The Work under Base Bid consists of removing the existing single ply roofing & insulation on the Jail/Courtroom & Main Courthouse roof for installation of new adhered single ply roofing material and removal of the existing built-up roofing system on the elevator Penthouse for new single ply roofing system. Elastomeric roof coating material shall also be installed on all parapets and chimney stack roof. An Add Alternate price will be solicited for repainting the steel window frames/mullions at the Jail/Courtroom and elevator Penthouse walls, all levels the exterior existing emergency stair, stair to the Jail roof area and the wall mounted ladder to the Elevator Penthouse roof. This work may become a part of the Construction Contract, dependent upon a decision by the County.

5. The Project will be constructed under a general construction contract.

B. WORK SEQUENCE

1. The Work shall be conducted in a single phase.

C. USE OF PREMISES

1. The Contractor shall have full usage of the premises for construction operations, including use of the Project site, during construction period. During the construction period, the County will maintain operations in existing law enforcement facilities off site.

D. WORK UNDER OTHER CONTRACTS

1. Separate Contract: The Owner may award a separate contract(s) for performance of other construction operations at Project site. Those operations may be conducted simultaneously with work under this Contract.

2. Cooperate fully with separate contractors if necessary, so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

E. SPECIFICATION FORMATS AND CONVENTIONS

1. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.

2. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

   a) Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

   b) Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

      (1) The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01100

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate N0. A: Repainting the steel window frames/mullions at the Jail/Courtroom and Elevator Penthouse walls, all levels of the exterior existing emergency stair, stair to the Jail roof area and the wall mounted ladder to the Elevator Penthouse roof.

END OF SECTION 01230

SECTION 012500 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on “Supplemental Instructions" form.

1.3 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
2. Within 20 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

    a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    c. Include costs of labor and supervision directly attributable to the change.
    d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

1.4 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.5 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01250

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
2. Submit the schedule of values to Architect at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.

B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.

1. Arrange schedule of values consistent with format of AIA Document G703.
2. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
3. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
    a. Differentiate between items stored on-site and items stored off-site.
    b. Off site storage shall be photographically documented along with all receipts.
    c. Off-site storage must be in a Bonded (insured) warehouse with the Owners name included on the insurance policy prior to requesting partial payment.
4. Overhead Costs: Include total cost and proportionate share of general overhead and profit for each line item.
5. Overhead Costs: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items.
6. Closeout Costs. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling ten percent of the Contract Sum and subcontract amount.
7. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

1.3 APPLICATIONS FOR PAYMENT

A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.

C. Payment Application Times: Submit Application for Payment to Architect by the last day of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.

1. Submit draft copy of Application for Payment seven days prior to due date for review by Architect.

D. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.

E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

F. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt. One copy shall include waivers of lien and similar attachments if required.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
2. When an application shows completion of an item, submit conditional final or full waivers.
3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
5. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.

H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors.
2. Schedule of values.
3. Contractor's construction schedule (preliminary if not final).
4. Products list (preliminary if not final).
5. Sustainable design action plans, including preliminary project materials cost data.
6. Schedule of unit prices.
7. Submittal schedule (preliminary if not final).
8. List of Contractor's staff assignments.
9. List of Contractor's principal consultants.
10. Copies of building permits.
11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
12. Initial progress report.
13. Report of preconstruction conference.
14. Certificates of insurance and insurance policies.
15. Performance and payment bonds.
16. Data needed to acquire Owner's insurance.

I. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706.
5. AIA Document G706A.
6. AIA Document G707.
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. General coordination procedures.
2. Coordination drawings.
3. RFIs.
4. Digital project management procedures.
5. Project meetings.

B. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

1.3 GENERAL COORDINATION PROCEDURES

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and scheduled activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's construction schedule.

2. Preparation of the schedule of values.
3. Delivery and processing of submittals.
4. Progress meetings.
5. Preinstallation conferences.
6. Project closeout activities.

1.4 CORRELATION AND INTENT OF DOCUMENTS

A. The contract documents, drawings and written specifications, are complementary. What is required, shown or specified by any one shall be as binding as if required by all. It is intended that the provisions set forth in the contract documents shall include all labor, equipment, and materials necessary for the complete and proper execution of the contract and that such materials shall be of the quality best suited for the uses to which they are to be put. It is not intended that one document shall take precedence over another. The Contractor(s) shall examine and check all drawings for the project and be responsible for coordinating their work with that of other Contractors.

B All Bidders and suppliers are required to examine carefully the site, and the proposal, plans, and specifications, for the work contemplated, and it will be assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, as to the requirements of these specifications, the special provisions and contract. It is mutually agreed that the submission of a proposal shall be considered prima facie evidence that the bidder has made such examination. The lack of knowledge or information of the requirements of the contract documents will not be accepted as a basis for any claim whatsoever for extra compensation.

C. Accuracy of collation of the Contract Documents cannot be guaranteed by the Architect/Engineer. By submission of his Proposal, the Contractor acknowledges that they have checked the specification pages and drawing sheets for completeness and conformance to the Table Of Content and the Index Of Drawings, respectively.

1.5 COORDINATION DRAWINGS

A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.

1.6 REQUEST FOR INFORMATION (RFI)

A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Architect and Construction Manager.
6. RFI number, numbered sequentially.
7. RFI subject.
8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

C. RFI Forms: AIA Document G716 or Software-generated form with substantially the same content as indicated above, acceptable to Architect.

D. Architect's and Contractor's Action: Architect and Contractor will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect or Contractor after 1:00 p.m. will be considered as received the following working day.

1. The following Contractor-generated RFIs will be returned without action:

    a. Requests for approval of submittals.
    b. Requests for approval of substitutions.
    c. Requests for approval of Contractor's means and methods.
    d. Requests for coordination information already indicated in the Contract Documents.
    e. Requests for adjustments in the Contract Time or the Contract Sum.
    f. Requests for interpretation of Architect's actions on submittals.
    g. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect or Contractor of additional information.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

    a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect and Construction Manager in writing within 10 days of receipt of the RFI response.
4. On receipt of Architect's and Contractor's action, immediately distribute the RFI response to affected parties. Review response and notify Architect and Contractor within seven days if Contractor disagrees with response.

1.7 DIGITAL PROJECT MANAGEMENT PROCEDURES

A. Use of Architect's Digital Data Files: Digital data files of Architect's CAD drawings will be provided by Architect for Contractor's use during construction.

1. Digital data files may be used by Contractor in preparing coordination drawings, Shop Drawings, and Project record Drawings.

2. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Contract Drawings.

3. Architect's Limit of Liability form shall be signed and returned to Architect's Office prior to transmittal of digital drawing files.

B. Web-Based Project Software: Use Construction Manager's web-based Project software site for purposes of hosting and managing Project communication and documentation until Final Completion.

1. Web-based Project software site includes, at a minimum, the following features:

a. Compilation of Project data, including Contractor, subcontractors, Architect, architect's consultants, Owner, and other entities involved in Project. Include names of individuals and contact information.
b. Access control for each entity for each workflow process, to determine entity's digital rights to create, modify, view, and print documents.
c. Document workflow planning, allowing customization of workflow between project entities.
d. Creation, logging, tracking, and notification for Project communications required in other Specification Sections, including, but not limited to, RFIs, submittals, Minor Changes in the Work, Construction Change Directives, and Change Orders.
e. Track status of each Project communication in real time, and log time and date when responses are provided.
f. Procedures for handling PDFs or similar file formats, allowing markups by each entity. Provide security features to lock markups against changes once submitted.
g. Processing and tracking of payment applications.
h. Processing and tracking of contract modifications.
i. Creating and distributing meeting minutes.
j. Document management for Drawings, Specifications, and coordination drawings, including revision control.
k. Management of construction progress photographs.
l. Mobile device compatibility, including smartphones and tablets.

2. Provide up to seven web-based Project software user licenses for use of Owner**,** Owner's Commissioning Authority, Contractor, Architect, and Architect's consultants. Provide eight hours of software training at Architect's office for web-based Project software users, or as necessary.
3. At completion of Project, provide digital archive in format that is readable by common desktop software applications in format acceptable to Architect. Provide data in locked format to prevent further changes.
4. Provide one of the following web-based Project software packages under their current published licensing agreements:

a. Oracle Primavera; Submittal Exchange
b. Autodesk; Constructware.

c. Corecon Technologies, Inc.
d. Meridian Systems; Prolog.
e. Newforma, Inc.
f. Procore Technologies, Inc.

C. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:

1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
2. Name file with submittal number or other unique identifier, including revision identifier.
3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

1.8 PROJECT MEETINGS

A. General: Contractor will schedule and conduct meetings and conferences at Project site unless otherwise indicated.

1. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

B. Progress Meetings: Contractor will conduct progress meetings at monthly intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner, Contractor, and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
1) Review schedule for next period.
b. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Contractor's Construction Schedule.
2. Construction schedule updating reports.
3. Daily construction reports.
4. Site condition reports.

B. Related Requirements:

1. Section 011200 "Multiple Contract Summary" for preparing a combined Contractor's Construction Schedule.

1.2 DEFINITIONS

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.

1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
2. Predecessor Activity: An activity that precedes another activity in the network.
3. Successor Activity: An activity that follows another activity in the network.

B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.

C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

D. Event: The starting or ending point of an activity.

E. Float: The measure of leeway in starting and completing an activity.

1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

1.3 INFORMATIONAL SUBMITTALS

A. Format for Submittals: Submit required submittals in the following format:

1. Working electronic copy of schedule file, where indicated.
2. PDF file.

B. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.

C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.

D. Construction Schedule Updating Reports: Submit with Applications for Payment.

E. Site Condition Reports: Submit at time of discovery of differing conditions.

1.4 COORDINATION

A. Coordinate Contractor's Construction Schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from entities involved.
2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

B. Time Frame: Extend schedule from date established for commencement of the Work to date of final completion.

1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:

1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.

3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
5. Commissioning Time: Include no fewer than 15 days for commissioning.
6. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's and Construction Manager's administrative procedures necessary for certification of Substantial Completion.
7. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.

D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.
2. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
3. Work Restrictions: Show the effect of the following items on the schedule:

    a. Coordination with existing construction.
    b. Limitations of continued occupancies.
    c. Uninterruptible services.
    d. Partial occupancy before Substantial Completion.
    e. Use-of-premises restrictions.
    f. Provisions for future construction.
    g. Seasonal variations.
    h. Environmental control.

E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.

F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:

1. Unresolved issues.
2. Unanswered Requests for Information.
3. Rejected or unreturned submittals.
4. Notations on returned submittals.
5. Pending modifications affecting the Work and the Contract Time.

G. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate final completion percentage for each activity.

H. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means

by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.

I. Distribution: Distribute copies of approved schedule to Architect, Construction Manager, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

1.6 GANTT-CHART SCHEDULE REQUIREMENTS

A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for commencement of the Work.

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

C. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.

D. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:

1. Contractor or subcontractor and the Work or activity.
2. Description of activity.
3. Main events of activity.
4. Immediate preceding and succeeding activities.
5. Early and late start dates.
6. Early and late finish dates.
7. Activity duration in workdays.
8. Total float or slack time.
9. Average size of workforce.
10. Dollar value of activity (coordinated with the schedule of values).

E. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:

1. Identification of activities that have changed.
2. Changes in early and late start dates.
3. Changes in early and late finish dates.
4. Changes in activity durations in workdays.
5. Changes in total float or slack time.

6. Changes in the Contract Time.

1.7 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.
3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Testing and inspection.
8. Accidents.
9. Meetings and significant decisions.
10. Stoppages, delays, shortages, and losses.
11. Meter readings and similar recordings.
12. Emergency procedures.
13. Orders and requests of authorities having jurisdiction.
14. Change Orders received and implemented.
15. Construction Change Directives received and implemented.
16. Services connected and disconnected.
17. Equipment or system tests and startups.
18. Partial completions and occupancies.
19. Substantial Completions authorized.

B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

1.2 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.3 SUBMITTAL SCHEDULE

A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

1. Project name.
2. Date.
3. Name of Architect.
4. Name of Construction Manager.
5. Name of Contractor.
6. Name of firm or entity that prepared submittal.
7. Names of subcontractor, manufacturer, and supplier.
8. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
9. Category and type of submittal.
10. Submittal purpose and description.
11. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
12. Drawing number and detail references, as appropriate.

13. Indication of full or partial submittal.
14. Location(s) where product is to be installed, as appropriate.
15. Other necessary identification.
16. Remarks.
17. Signature of transmitter.

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Paper Submittals:

1. Place a permanent label or title block on each submittal item for identification; include name of firm or entity that prepared submittal.
2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
3. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. Architect will return two copies.
4. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
5. Transmittal for Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using facsimile of sample form included in Project Manual transmittal form.

E. PDF Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

F. Submittals for Web-Based Project Software: Prepare submittals as PDF files, or other format indicated by Project software website.

1.5 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Email: Prepare submittals as PDF package, and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.
2. Web-Based Project Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
3. Paper: Prepare submittals in paper form, and deliver to Architect.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
2. Resubmittal Review: Allow 15 days for review of each resubmittal.

D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

1.6 SUBMITTAL REQUIREMENTS

A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

    a. Manufacturer's catalog cuts.
    b. Manufacturer's product specifications.
    c. Standard color charts.
    d. Statement of compliance with specified referenced standards.
    e. Testing by recognized testing agency.
    f. Application of testing agency labels and seals.
    g. Notation of coordination requirements.
    h. Availability and delivery time information.

4. For equipment, include the following in addition to the above, as applicable:

    a. Wiring diagrams that show factory-installed wiring.
    b. Printed performance curves.
    c. Operational range diagrams.
    d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.

5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.

B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data unless submittal based on Architect's digital data drawing files is otherwise permitted.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

    a. Identification of products.
    b. Schedules.
    c. Compliance with specified standards.
    d. Notation of coordination requirements.
    e. Notation of dimensions established by field measurement.
    f. Relationship and attachment to adjoining construction clearly indicated.
    g. Seal and signature of professional engineer if specified.

2. Paper Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit

C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Permanently attach label on unexposed side of Samples that includes the following:

    a. Project name and submittal number.
    b. Generic description of Sample.
    c. Product name and name of manufacturer.
    d. Sample source.
    e. Number and title of applicable Specification Section.
    f. Specification paragraph number and generic name of each item.

3. Email Transmittal: Provide PDF transmittal. Include digital image file illustrating Sample characteristics, and identification information for record.
4. Web-Based Project Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
5. Paper Transmittal: Include paper transmittal including complete submittal information indicated.
6. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

    a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

7. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.

8. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
   a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record Sample.
   b. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
   c. If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.

D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.

F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

G. Certificates:

1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding

Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.

H. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

    a. Name of evaluation organization.
    b. Date of evaluation.
    c. Time period when report is in effect.
    d. Product and manufacturers' names.
    e. Description of product.
    f. Test procedures and results.
    g. Limitations of use.

1.7 DELEGATED-DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Architect.

B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit original signature copies or digitally signed PDF file and three paper copies of certificate, signed and sealed by the responsible Iowa-registered design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

1.8 CONTRACTOR'S REVIEW

A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp indication in web-based Project software. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.9 ARCHITECT'S REVIEW

A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return it.

1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action, as follows:
   a. “A – No Exceptions Taken”
   b. “B – Make Corrections Noted”
   c. “C – Revise and Resubmit”
   d. “D – Rejected”
   e. “E – Submit Specified Item”

2. Paper Submittals: Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
   a. “A – No Exceptions Taken”
   b. “B – Make Corrections Noted”
   c. “C – Revise and Resubmit”
   d. “D – Rejected”
   e. “E – Submit Specified Item”

3. Submittals by Web-Based Project Software: Architect will indicate, on Project software website, the appropriate action. Actions taken by indication on Project software website have the following meanings:
   a. “A – No Exceptions Taken”
   b. “B – Make Corrections Noted”
   c. “C – Revise and Resubmit”
   d. “D – Rejected”
   e. “E – Submit Specified Item”

B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements.

C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.

E. Architect will return without review or discard submittals received from sources other than Contractor.

F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 013523 – SAFETY PRECAUTION AND PROGRAMS

PART 1 – PROTECTION OF PERSONS, PROPERTY SAFETY PRECAUTIONS AND PROGRAMS

1.1 CONTRACTOR RESPONSIBILITY

A. The Contractor is solely responsible for initiating, maintaining and supervising all safety precautions and programs required under its portion of the Work on a day-to-day basis. The Contractor's shall obtain and review the Project Site Safety Program for general conformance with the Contract terms and conditions.

1.2 SAFETY OVERVIEW

A. Each Contractor and its subcontractors of all tiers shall be responsible for the health, safety and security of employees under their control and as to their area of Work and will submit a copy of their specific Project Site Safety Program to the Contractor prior to commencement of any Work.

B. The Contractor shall recognize that it is important to its business and the Owner's Project to prevent the occurrences of incident that lead to occupational injuries or illnesses. Safety, Health and Security requirements on this Project shall be prepared and administered by the Contractor in accordance with the following:
   1. The accident prevention policy shall be based on a sincere desire to eliminate personal injuries, occupational illness, and equipment and property damage; and to protect the general public exposed to or associated with the Work.
   2. The importance of safety on the Project shall be recognized and accident prevention shall be an integral part of all planning and operations.
   3. Contractor and its subcontractors shall conduct Work in a safe and practical manner in conformance with Occupational Safety & Health Act of 1970 (OSHA) and all additions and revisions thereto, the latest edition of the Manual of Accident Prevention, Associated General Contractors of America.
   4. In addition to Contractors Project Site Safety Program, the Contractor and its subcontractors shall follow all applicable Federal, State and local laws/regulations pertaining to safety, health, pollution control, water supply, fire protection, sanitation facilities, waste disposal and other related items.
   5. Each Prime Contractor shall cooperate fully with all other Contractors in their respective Safety, Health and Security programs.
   6. Good housekeeping shall be observed at all times, and waste, debris, and garbage shall be removed daily or placed in appropriate waste containers outside of the work place and all materials, tools and equipment shall be stored in a safe and orderly fashion.
   7. Each Contractor shall educate its employees and its subcontractors and their employees as to the site specific Safety, Health and Security Plan(s) and to enforce adherence to safe work procedures outlined in these General Conditions.
   8. Should the Owner or the Construction Manager observe a Contractor, subcontractor or its supervisors or employees engaged in an unsafe act or improperly utilizing equipment in such a manner that creates an inherently dangerous condition which puts the life or safety of job site personnel at risk or in danger, then the Contractor agrees that the Owner or Construction Manager has the right to immediately address by the Contractor, who shall correct the hazard or condition prior to resuming Work in the area.

1.3 SAFETY PROGRAM

A. Each Contractor and its subcontractor(s) of any tier shall be required to submit its company Project Safety Site Program to the Construction Manager for review of compliance with the contract requirements before starting any Work. Each Contractor and its subcontractors shall submit their Safety Policy to the Owner.

B. Contractors' employing more than a combined total of 50 or more employees (including sub-tier contractors) shall be required to employ a dedicated full time Safety Representative knowledgeable in the areas of safety, health and fire prevention. Contractors' employing a combined total of less than 50 employees (including sub-tier contractors) will be required to identify a supervisory employee having knowledge and experience in safety to act as the designated Safety Representative to assist the Contractors supervision in the conduct of its safety program and responsibilities. This individual shall have the responsibility and authority to act as liaison with the Owner, Construction Manager, the Contractor and its subcontractors on all matters related to safety. This individual shall have the full authority, and shall exercise same as necessary to ensure safe work practices and correct unsafe hazardous conditions.

C. The Contractor shall inform the Owner and the Construction Manager of any Federal or State inspection, and the Owner and Construction Manager will receive copies of all Federal and State inspection reports, citations, penalties, abatement dates, etc.

D. The Contractor shall give full cooperation to the Owner and Construction Manager personnel, who may periodically observe the Project Work Site without prior notice.

1.4 SAFETY ORIENTATION FOR CONTRACTOR SUPERVISION

A. The Contractor and its subcontractors shall meet with the Construction Manager to review and agree to the following:
   1. Safety Procedures at the Project
   2. Safety orientation and meetings for trades personnel (schedule and methods to be used).
   3. Record keeping requirements for inspections, violations.
   4. Employee complaints and discipline.
   5. Injury reporting and investigation.
   6. Sanitation and water supply system.
   7. Work Activities Requiring Permits
   8. Traffic incidents and accidents.

B. The Contractor shall be responsible for written documentation of all such meeting.

1.5 EMPLOYEE SAFETY ORIENTATION AND SAFETY MEETINGS

A. The Contractor or its subcontractor(s) of any tier shall follow OSHA Act 1926.1 (b) (2) requirements that state "that each employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment."

B. The Contractor shall provide site and safety orientation to all employees as they begin Work on the Project. This orientation shall cover general safety rules, potential hazards, site work rules, the wearing of protective equipment and the relationship of the Owner's and Construction Manager's personnel assigned to the

C. Project. Attendance at the mandatory briefing is required of all Contractors' employees. The Contractor and each of its subcontractors shall keep a record of all attendees and topics discussed.

D. The Contractor and each of its subcontractors shall hold weekly Toolbox Meetings at the Project site. It is the responsibility of the Contractor and/or its subcontractor(s) to furnish the following documentation to

the Construction Manager after each safety meeting: date, topics discussed, meeting chair, names of employees who were present, names of employees who were absent, trade and/or subcontractor name.

1.6 ACCIDENT REPORTS

A. All accidents or occurrences resulting in employee injury and/or property damage shall immediately be verbally reported by the Contractor. An Accident investigation with a formal written “Accident Report” and “First Report of Injury” shall be completed and forwarded to the Construction Manager within 24 hours, but not later than the end of the working day after the occurrence or Accident. Any incidents involving the police or law enforcement agency shall also be included in this documentation.

B. All recordable occupation injuries and illnesses, other that First Aid cases, shall be submitted with the Payment Application to the Contractor. Failure to provide this information will delay the processing of the Contractors Payment Application.

C. The Owner will meet on a regular basis to review safety and claims. At this time any Contractor or its subcontractor who has adverse accident experience shall have a senior executive of the company attend in person and report on the cause of the accident, what corrective measures have been instituted and the status of “Return-to Work” for injured employees.

1.7 FIRST AID AND MEDICAL TREATMENT

A. The contractor will establish a network of physicians, hospitals and medical facilities for the treatment of injuries.

B. Utilizing an established 911 protocol, the Contractor shall be required to provide for the immediate transportation and treatment of any employee who may be injured or become ill while on the Project to the appropriate facility.

C. The Contractor shall maintain a first aid kit supplied according to current regulations and shall have a certified person trained in first aid and CPR identified on site to cover those periods outside of normal project working hours.

D. Each Contractor shall maintain a log of all minor First Aid Treatments and will provide to the Program Manager a copy of such log monthly or as directed.

1.8 EMPLOYEE AND VISITOR DRESS REQUIREMENTS

A. The project shall be a 100% hard hat, durable work shoe and safety glasses (meeting ANSI requirements). All supervisors, employees and visitors shall be required to wear hard hats, durable work shoes and safety glasses while on the Project Work Site.

B. It will be the responsibility of the Contractor and its subcontractors to insure that all of its employees wear durable work shoes and under no conditions shall its employees wear shorts, tank tops, sleeveless shirts, clothes or footwear with large openings, street shoes, tennis shoes or sandals.

C. All employees shall be properly and completely clothed while working. Bare toes, legs and feet will not be allowed.

D. Other appropriate personal protective equipment shall be provided and worn as required for personal safety and protection.

1.9 EMERGENCY NOTIFICATION

A. A procedure will be established by the Contractors to provide emergency communications to all individuals on the site. This procedure shall be submitted to the Owner for their review. This procedure will not be used to handle routine calls to individuals.

1.10 FAILURE TO COMPLY WITH SAFETY REGULATIONS

A. Failure to comply with the Contract safety requirements will be considered as non-compliance with the Contract and may result in remedial action provided by the Contract.

B. If the Owner notifies the Contractor of any non-compliance with the provisions of this program, the Contractor shall make all reasonable efforts to correct the unsafe conditions or acts. Satisfactory corrective action shall be taken within the time specified by the Owner and Construction Manager.

C. If a Contractor or subcontractor refuses to correct unsafe or unhealthy conditions or acts, the Owner and Construction Manager may take one or more of the following steps:
   1. Cease the operation or a portion thereof until the condition is brought into compliance with the Contractor's Project Site Safety Program or procedures and the Project Safety Requirements.
   2. Require the Contractor to replace or supplement its Site Safety Representative and/or the supervisory personnel.
   3. Stop payment for the Work being performed.
   4. Correct the situation using other employees or contractors and back-charge the Contractor for expenses incurred. All costs, including but not limited to those above, associated with insuring a safe and health conscious work environment shall be borne by the non-complying Contractor and costs will be back-charged to the non-conforming Contractor. Each Contractor shall be responsible for payment of all fines and/or claims for damages levied against the Owner or the Construction Manager for deficiencies relating to conduct of Contractor's work.

1.11 SAFETY OF PERSONS AND PROPERTY

A. The contractor shall take all reasonable precautions for the safety of and shall provide all reasonable protection to prevent damage, injury or loss to:
   1. All employees on-site and all other persons who may be affected thereby.
   2. All the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor or any of its subcontractors, subcontractors or suppliers, and
   3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation of replacement in the course of construction.

1.12 EMERGENCIES

A. In any emergency affecting the safety of persons or property, the Contractor shall act to prevent threatened damage, injury or loss.

END SECTION 013523

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
2. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.2 DEFINITIONS

A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

B. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).

D. Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

E. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.

F. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

G. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

H. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Architect or Construction Manager.

1.3 DELEGATED-DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1.4 CONFLICTING REQUIREMENTS

A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 ACTION SUBMITTALS

A. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, showing current licensure in the State of Nebraska, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

1.6 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, telephone number, and email address of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.

8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspection.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Statement on condition of substrates and their acceptability for installation of product.
2. Statement that products at Project site comply with requirements.
3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
5. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

1. Statement that equipment complies with requirements.
2. Results of operational and other tests and a statement of whether observed performance complies with requirements.
3. Other required items indicated in individual Specification Sections.

1.7 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the

system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.

H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

J. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1. Contractor responsibilities include the following:

a. Provide test specimens representative of proposed products and construction.
b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
c. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
d. When testing is complete, remove test specimens and test assemblies, and mockups; do not reuse products on Project.

2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect through Construction Manager, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:

1. Build mockups of size indicated.
2. Build mockups in location indicated or, if not indicated, as directed by Architect or Construction Manager.
3. Notify Architect and Construction Manager seven days in advance of dates and times when mockups will be constructed.

4. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
5. Demonstrate the proposed range of aesthetic effects and workmanship.
6. Obtain Architect's and Construction Manager’s approval of mockups before starting corresponding work, fabrication, or construction.

    a. Allow seven days for initial review and each re-review of each mockup.

7. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
8. Demolish and remove mockups when directed unless otherwise indicated.

L. Laboratory Mockups: Comply with requirements of preconstruction testing and those specified in individual Specification Sections.

1.8 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspection they are engaged to perform.
2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.

1. Engage a qualified testing agency to perform quality-control services.

    a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
4. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.

D. Testing Agency Responsibilities: Cooperate with Architect, Commissioning Authority, Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the locations from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform duties of Contractor.

E. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."

F. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

G. Associated Contractor Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
6. Security and protection for samples and for testing and inspection equipment at Project site.

H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.9 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner will engage a qualified testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, as indicated in the Statement of Special Inspections attached to this Section, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.

2. Notifying Architect, Construction Manager, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect through Construction Manager, with copy to Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and re-inspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's, Commissioning Authority’s, and Construction Manager’s reference during normal working hours.

1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspection, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.

B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.3 INFORMATIONAL SUBMITTALS

A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.

B. Erosion and Sedimentation-Control Plan: Show compliance with requirements under the National Pollutant Discharge Elimination System (NPDES) General NPDES Permit Number NER210000 for Storm Water Discharges from Construction Sites to Waters of the State of Nebraska or authorities having jurisdiction, whichever is more stringent.

C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

D. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

E. Moisture-and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling,

storage, installation, and protection provisions for materials subject to water absorption or water damage.

1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
3. Indicate methods to be used to avoid trapping water in finished work.

F. 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. Include the following:

1. Locations of dust-control partitions at each phase of work.
2. HVAC system isolation schematic drawing.
3. Location of proposed air-filtration system discharge.
4. Waste-handling procedures.
5. Other dust-control measures.

1.4 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

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 in the United States Access Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.5 PROJECT CONDITIONS

A. 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.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10 mils minimum thickness, with flame-spread rating of 15 or less per ASTM E 84.

B. Dust Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches.

2.2 TEMPORARY FACILITIES

A. Field Offices, General (if required): Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:

1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
2. Conference room of sufficient size to accommodate meetings of 10 individuals. Provide electrical power service and 120-V ac duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4-foot-square tack and marker boards.
3. Drinking water and private toilet.
4. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.
5. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.

C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Store combustible materials apart from building.

2.3 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

B. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

3.2 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.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.3 TEMPORARY UTILITY INSTALLATION

A. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

B. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

C. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel.

3.4 SUPPORT FACILITIES INSTALLATION

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

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

B. Parking: Confirm with Owner areas and quantity of existing parking areas for temporary use by construction personnel.

C. Storage and Staging: Provide temporary areas for storage and staging needs.

D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

E. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Verify exact location with Owner.

F. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities. Verify exact location with Owner

G. Existing Elevator Use: Use of Owner's existing elevators will be permitted, provided elevators are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore elevators to condition existing before initial use, including replacing worn cables, guide shoes, and similar items of limited life.

1. Do not load elevators beyond their rated weight 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 elevator Installer to restore damaged work so no evidence remains of correction work. Return items that cannot be refinished in field to the shop, make required repairs and refinish entire unit, or provide new units as required.

H. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.

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 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.

J. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.

B. 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.

C. Temporary Erosion and Sedimentation Control: Comply with requirements under the National Pollutant Discharge Elimination System (NPDES) General NPDES Permit Number NER210000 for Storm Water Discharges from Construction Sites to Waters of the State of Nebraska or authorities having jurisdiction, whichever is more stringent, and requirements specified in Section 311000 "Site Clearing."

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 erosion- and sedimentation-control Drawings.

1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

D. 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.

E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

F. 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 materials approved by authorities having jurisdiction.

G. Site Enclosure Fence: Prior to commencing earthwork, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.

H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.

I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

J. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide signage directing occupants to temporary egress.

K. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

L. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.

1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant-treated plywood on construction operations side.
2. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
3. Provide walk-off mats at each entrance through temporary partition.

M. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.

1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.

3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.6 MOISTURE AND MOLD CONTROL

A. Contractor's Moisture-Protection Plan: Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.

1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
3. Indicate methods to be used to avoid trapping water in finished work.

B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:

1. Protect porous materials from water damage.
2. Protect stored and installed material from flowing or standing water.
3. Keep porous and organic materials from coming into prolonged contact with concrete.
4. Remove standing water from decks.
5. Keep deck openings covered or dammed.

C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:

1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
2. Keep interior spaces reasonably clean and protected from water damage.
3. Periodically collect and remove waste containing cellulose or other organic matter.
4. Discard or replace water-damaged material.
5. Do not install material that is wet.
6. Discard and replace stored or installed material that begins to grow mold.
7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.

D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

3.7 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.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.

2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.2 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved by Architect through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 ACTION SUBMITTALS

A. Comparable Product Request Submittal: Requests for substitution will typically *not* be entertained by Architect during the Bidding and Negotiations period. A determination of compliance with Specification language is left to the bidder or product vendor, unless specific language in the Specifications allows or permits substitution requests, or as allowed by Architect via written Addenda.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

B. Product Selection Procedures:

1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.

    a. Sole product may be indicated by the phrase: "Subject to compliance with requirements, provide the following: …"

2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.

    a. Sole manufacturer/source may be indicated by the phrase: "Subject to compliance with requirements, provide products by the following: …"

3. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered unless otherwise indicated.

    a. Limited list of products may be indicated by the phrase: "Subject to compliance with requirements, provide one of the following: …"

4. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, which complies with requirements.

    a. Non-limited list of products is indicated by the phrase: "Subject to compliance with requirements, available products that may be incorporated in the Work include, *but are not limited to*, the following: …"

5. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered unless otherwise indicated.

    a. Limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, provide products by one of the following: …"

6. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, which complies with requirements.

    a. Non-limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following: …"

7. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

    a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.

C. Visual Matching Specification: Where Specifications require "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following

conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:

1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work. Architect will evaluate via detailed comparison of significant qualities of proposed product against those named in the Specifications. Significant product qualities include attributes such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, color, and other specific features and requirements.
2. Evidence that proposed product provides specified warranty.
3. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
4. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for project record documents, including the following:

1. Record Drawings.
2. Record Specifications.
3. Record Product Data.

B. Related Requirements:
1. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.2 CLOSEOUT SUBMITTALS

A. Record Drawings: Comply with the following:

1. Number of Copies: Submit one set of marked-up record prints.
2. Number of Copies: Submit copies of record Drawings as follows:

a. Initial Submittal:

1) Submit one paper-copy set of marked-up record prints.
2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.

b. Final Submittal:

1) Submit three paper-copy set(s) of marked-up record prints.
2) Print each drawing, whether or not changes and additional information were recorded.

B. Record Specifications: Submit one paper copy of Project's Specifications, including addenda and contract modifications.

C. Record Product Data: Submit one paper copy of each submittal.

1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

1.3 RECORD DRAWINGS

A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.

1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

    a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    b. Accurately record information in an acceptable drawing technique.
    c. Record data as soon as possible after obtaining it.
    d. Record and check the markup before enclosing concealed installations.
    e. Cross-reference record prints to corresponding photographic documentation.

2. Content: Types of items requiring marking include, but are not limited to, the following:

    a. Dimensional changes to Drawings.
    b. Revisions to details shown on Drawings.
    c. Depths of foundations.
    d. Locations and depths of underground utilities.
    e. Revisions to routing of piping and conduits.
    f. Revisions to electrical circuitry.
    g. Actual equipment locations.
    h. Duct size and routing.
    i. Locations of concealed internal utilities.
    j. Changes made by Change Order or Construction Change Directive.
    k. Changes made following Architect's written orders.
    l. Details not on the original Contract Drawings.
    m. Field records for variable and concealed conditions.
    n. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize record prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Identification: As follows:

    a. Project name.
    b. Date.
    c. Designation "PROJECT RECORD DRAWINGS."
    d. Name of Architect.
    e. Name of Contractor.

1.4 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
5. Note related Change Orders, record Product Data, and record Drawings where applicable.

B. Format: Submit record Specifications as annotated PDF electronic file, or paper copy, or scanned PDF electronic file(s) of marked-up paper copy of Specifications.

1.5 RECORD PRODUCT DATA

A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.

B. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, record Specifications, and record Drawings where applicable.

C. Format: Submit record Product Data as annotated PDF electronic file, or paper copy, or scanned PDF electronic file(s) of marked-up paper copy of Product Data.

1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

1.6 MAINTENANCE OF RECORD DOCUMENTS

A. Maintenance of Record Documents: Store record documents in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION 017839

(One Copy)	(One Copy)	(One Copy)	(_____Copies)
PA Office	Owner	Consultant	Contractor

SHOP DRAWING TRANSMITTAL FORM

PROJECT NAME **RICHARDSON COUNTY COURTHOUSE ROOF REPLACEMENT**

1700 Stone Street, Falls City, Nebraska

P & A PROJECT NO. 222302 DATE: _____

SUBMIT TO: **PROCHASKA & ASSOCIATES**
11317 Chicago Circle
Omaha, Nebraska 68154-2633

TRANSMITTAL NO. _____

# OF COPIES	SPEC. SECTION/DWG. NO.	DESCRIPTION OF EQUIPMENT	MANUFACTURER	ACTION TAKEN

As stated in the Contract Documents, the undersigned CONTRACTOR'S submission of these Shop Drawings or samples shall constitute a representation to the OWNER and the ARCHITECT-ENGINEER that the CONTRACTOR has reviewed this submittal and complied with Supplementary Conditions, Article 6, Shop Drawings and Samples.

_____ X_____ (Authorized
(Contractor's Name) Signature of Contractor)

_____
(Mailing Address)

_____

_____
(Phone Number)

****

(THIS SPACE FOR ARCHITECT-ENGINEER)

REMARKS:

The above drawings are returned with action as designated above in accordance with the following legend:

A - No Exception Taken
B - Make Corrections Noted
C - Revise and Resubmit
D - Rejected
E - Submit Specified Item

PROCHASKA & ASSOCIATES

BY _____

DATE _____

DIVISION 07

DIVISION 07

SECTION 070150 - ELASTOMERIC ROOF COATING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   a. Elastomeric roof coating

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Show locations and extent of elastomeric roof coating and details of substrate joints and cracks, expansion joints, sheet flashings, penetrations, inside and outside corners, tie-ins with adjoining waterproofing, and other termination conditions.

1.3 INFORMATIONAL SUBMITTALS

A. Sample warranties available.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and experienced with waterproofing manufacturer.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. The bonding surface must be free of moisture, oil, grease, dirt, debris, and ice.

B. Installer shall perform adhesion test patches to assure compatibility with substrate.

C. Mask off adjoining surfaces not receiving waterproofing to prevent spillage and overspray affecting other construction.

D. Allow sufficient drying time for coatings. Consider environmental conditions including mist, dew, relative humidity, and condensation.

E. Do not begin work if rain is expected within 24 hours of application.

2.2 BASIS-OF-DESIGN; 838 Fast-1 Single Step Applied Solvent-Free Elastomeric Roof Coating as manufactured by 838 Coatings, 12800 State Hwy 13, STE 400, Savage, MN.

A. One-component, moisture curing silicone roof coating.

B. Forms a breathable yet waterproof roofing membrane that is highly resistant to weathering.

C. Designed for single step application of up to 3.0 gal/SQ.

D. Elastomeric roof coating shall have the following characteristics:
   1. Initial Thermal Emissivity, ASTM C-1371: 1-3 gallons per 100sq ft. depending on substrate- See Systems Specification
   2. Application Temperature: 40° to 120° (Air & Substrate)
   3. Total Solids by Volume ASTM D-2369: 96 (±2)
   4. Tensile Strength, ASTM D-412: 350 psi
   5. Elongation ASTM D-412: 174%
   6. Permeability, ASTM E-96: 10.7 perms
   7 Flame Spread ASTM E-108: Class A
   8. Initial Solar Reflectivity, ASTM C-1549: 90
   9. Initial Thermal Emissivity, ASTM C-1371

PART 3 - EXECUTION

3.1 The Contractor is responsible for the preparation of the roof substrate. This includes:
   1. Remove and replace any deteriorated coping.
   2. All substrates must be inspected and any unsatisfactory conditions must be resolved to the satisfaction of manufacturer.
   3. All existing surfaces shall be cleaned and prepped as required by the manufacturer for proper adhesion.
   4. If required by manufacture, primer shall be utilized for proper adhesion.

END OF SECTION 071353

SECTION 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Adhered ethylene-propylene-diene-terpolymer (EPDM) roofing system.
2. Coverboard.
3. Roof insulation
4. Metal roof edging and copings.
5. Flashings.
6. Preparation of roofing substrates.
7. Walkways.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. For insulation and roof system component fasteners, include copy of FM Approvals'.

2. Installation Instructions: Provide manufacturer's instructions to installer, marked up to show exactly how all components will be installed; where instructions allow installation options, clearly indicate which option will be used

B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness it insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.
4. Tapered insulation, thickness, and slopes, if any.
5. Roof plan showing roof deck substrate material and orientation of roof membrane and fastening spacings and patterns for mechanically fastened roofing system.
6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
7. Tie-in with existing insulation
8. Roof walkway pad locations.

C. Samples: For the following products:

. Roof membrane and flashings of color required.
2. Walkway pads of rolls or individual squares, of color required.

D. Provide the roof membrane manufacturer's standard details customized for this project for all relevant conditions, including flashings, base tie-ins, roof edges, terminations, expansion joints, penetrations, and drains.

E. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

.1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in ”Performance Requirements" Article.

a. Submit evidence of complying with performance requirements.

2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for warranty.

B. Product Test Reports: For components of roof membrane and insulation, for tests performed by a qualified testing agency, indicating compliance with specified requirements.

C Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Executed Warranty on all products as a requirement of project close-out.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing *system* manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.

1.7 WARRANTY

A. Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. 2 year Contractor’s workmanship warranty from Date of Substantial Completion.

2. Warranty Period: 20 year manufacturer's watertightness warranty from Date of Completion.

3. 35 year manufacture's paint, prefinished, finish warranty on metal flashings from Date of Completion.

4. Scope of Coverage: No dollar limitation.
   a. Ordinary wear and tear of the elements.
   b. Manufacturing defect in Firestone brand materials.
   c. Defective workmanship used to install these materials.
   d. Damage due to winds up to 55 to 90 mph.

5. Not Covered:
   a. Damage due to winds in excess of 90 mph.
   b. Damage due to hurricanes or tornadoes.
   c. Hail.
   d. Intentional damage due to normal rooftop inspections, maintenance, or service

1.8 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in manufacturer's original containers, dry and undamaged, with seams and labels intact

B. Store materials in weather protected environment, clear or ground and moisture

C. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of rood decking.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Accelerated Weathering: Roof membrane shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.

B. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D 3746, ASTM D 4272, or the Resistance to Foot Traffic Test in FM Approvals 4470.

C. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.

D. Wind Uplift Resistance: Design roofing system to resist the following wind uplift pressures when tested according to FM Approvals 4474, UL 580, or UL 1897:

   1. 17.2 psf

E. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualitied testing agency. Identify products with appropriate markings of applicable testing agency.

F. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.2 BASIS-OF-DESIGN - Roofing System: Firestone Building Products Co., Carmel, IN. www.firestonebpco.com.

A. Roofing systems manufactured by others may be acceptable provided the roofing system is completely equivalent in materials and warranty conditions and the manufacturer meets the following qualifications:
   1. Specializing in manufacturing the roofing system to be provided.
   2. Minimum ten years of experience manufacturing the roofing system to be provided.
   3. Able to provide a no dollar limit, single source roof system warranty
   4. ISO 9002 certified.
   5. Able to provide Polyisocyanurate insulation that is approved by roofing manufacturer to maintain warranty.

B. Manufacturer of Insulation and Cover Board: Same manufacturer as roof membrane.

C. Manufacturer of Metal Roof Edging: Same manufacturer as roof membrane.
   1. Metal roof edging products by other manufacturer's shall be equal to or better than manufacturer's.
   2. Field- or shop-fabricated metal roof edgings

D. Substitution Procedures: See Instructions to Bidders.
   1. Submit written paragraph by paragraph comparison/evidence that the proposed substitution complies with the specified requirements

2.3 ROOF SYSTEM DESCRIPTION

A. Roofing and Flashing Membrane: Black cured synthetic single-ply membrane composed of ethylene propylene diene terpolymer (EPDM) with the following properties:
   1. Thickness: 0.060 inch (60 mil)
   2. Sheet Width: 120 inches, minimum.
   3. Reinforcement: Polyester weft inserted scrim; membrane complying with ASTM D 4637 Type II.
   4. Nominal Thickness Tolerance: Plus/minus10 percent
   5. Seaming Materials: As recommended by membrane manufacturer.
   6. Membrane Attachment: Adhered.
   7. Acceptable Product: RubberGard Non-Reinforced EPDM Membrane by Firestone
   8. Slope: Deck is sloped and provide additional slope by means of tapered insulation at roof drains and parapet walls as required for positive drainage.
   9. Comply with applicable local building code requirements.
   10. Provide assembly having Underwriters Laboratories, Inc. (UL) Class A Fire Hazard Classification.
   11. Provide assembly complying with Factory Mutual Corporation (FM) Roof Assembly Classification, FM DS 1-28 and 1-29, and meeting minimum requirements of FM 1-90 wind uplift rating.

B. Roofing Accessories:
   1. Self-Adhesive Flashing Membrane: Semi-cured 60 mil EPDM membrane laminated to 35 mil (0.9 mm) EPDM tape adhesive.
   2. Pre-Molded Pipe & Soil Stack Flashings: EPDM, molded for quick adaptation to different sized pipes.
   3 Pitch Pans: Size and shape as required for penetration.
   4. Self-Adhesive Lap Splice Tape: 35 mil (0.9 mm) EPDM-based, formulated for compatibility with EPDM membrane and high-solids primer.

5. Splice Adhesive: Synthetic polymer-based, formulated for compatibility with EPDM membrane and metal surfaces.
6. Bonding Adhesive: Neoprene-based, formulated for compatibility with EPDM membrane and wide variety of substrate materials, including masonry, wood, and insulation facings.
7. Adhesive Primer: Synthetic rubber based primer formulated for compatibility with EPDM membrane and tape adhesive, with VOC content less than 2.1 lb/gal (250 g/L).
8. Seam Edge Treatment: EPDM rubber-based sealant, formulated for sealing exposed edges of membrane at seams.
9. Pourable Sealer: Two-part polyurethane, two-color for reliable mixing.
10. Water Block Seal: Butyl rubber sealant for use between two surfaces, not exposed.
11. Metal Plates and Strips Used for Fastening Membrane and Insulation: Steel with Galvalume coating; corrosion-resistance meeting FM 4470 criteria.
12. Termination Bars: Aluminum bars with integral caulk ledge; 1.3 inches (33 mm) wide by 0.10 inch (2.5 mm) thick.
13. Roof Walkway Pads: EPDM, *0.30* inch (7.6 mm) thick by 30 by 30 inches (760 by 760 mm) with EPDM tape adhesive strips laminated to the bottom,
    a. Install walkway between all access doors, hatches, stairs and ladders

C. Roof Insulation:

1. Total System R Value: 25 or greater.
2. Maximum Board Thickness: 1.5 inches (50 mm); stagger joints in adjacent layers.
   Polyisocyanurate Board Insulation
   lay 0.50 ISO Gard HD Coverboard (approx; R - 2.5)
   lay 1.50 ISO (R - 8.4) Predrill into the existing concrete deck.
3. Insulation Fasteners: 1.50 ISO - Type and size as required by roof membrane manufacturer for roofing system and warranty to be provided; use only fasteners furnished by roof membrane manufacturer.

C. Insulation Accessories:

1. Fasteners: Factory-coated steel fasteners and metal plates complying with *corrosion-*resistant provisions. Designed for fastening roof insulation.
2. Fasten insulation using 1 fastener per 2 square feet.

D. Cover Board:

1. 1/2” ISO Gard HD Coverboard (approx; R - 2.5)
2. Adhesively attached to insulation with manufacturers adhesive.

PART 3 - EXECUTION

3,1 EXISTING CONDITIONS

A. Four preliminary tests cuts were performed on the existing roof areas to determine the existing roofing material previously installed. One on each roof area and one on the abandoned

skylight location. Contractor shall verify these existing conditions prior to start of construction.

1. Highest roof area (Penthouse)
   a. 1" Gravel surface built up roof with asphalt (firmly adhered to the concrete deck)
   b. Concrete roof deck with structural slope
2. Middle roof area (Jail/Courtroom)
   a. Fully adhered EPDM (reinforced)
   b. Two layers of 1/2" ISO insulation mechanically fastened
   c. 1" Built up roof with asphalt (firmly adhered to the deck)
   d. Concrete roof deck with structural slope
3. Middle roof area (skylight curbs)
   a. Fully adhered EPDM (reinforced)
   b. Plywood deck with structural slope
   c. Assume insulation under the deck
4. Low roof area (main courthouse roof)
   a. Fully adhered EPDM (reinforced)
   b. Two layers of 1/2" ISO insulation mechanically fastened
   c. 1" Built up roof with asphalt (firmly adhered to the deck)
   d. Concrete roof deck with structural slope

3.2 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.

1. .Prior to start of construction, verify that the existing conditions are as stated above to confirm the scope-of-work.

3.3 ROOF REPARATION

A. All Areas; Tear-off metal flashings and rubber membrane down to the existing insulation.

B Area #1 (Elevator Penthouse); Remove all loose gravel membrane from surface of existing built-up roof system and prep per manufactures recommendation for installation of new EPDM roofing system.

C. Area #2 & #4 (Jail/Courtroom & Main Courthouse Roof); Remove the top layer of the mechanically attached ISO insulation.

D Area #2 & #4 (Jail/Courtroom & Main Courthouse Roof); Base layer of insulation shall be inspected and if any deteriorated insulation is found, it shall be removed and replaced according to the manufacture's standards.

E Area #3 (skylight curbs); Remove existing adhered EPDM (reinforced) membrane from existing plywood decking.

F Tie-off new roof to existing roof daily for a temporary watertight seal.

3.4 ROOFING INSTALLATION

A. Area #1§(Penthouse); After removal of all existing built-up material, mechanically attach new fire treated wood blocking at lower outside edge of roof slope for installation on 1 '/ " IOS insulation, adhesively attached, followed by new adhesively attached cover board and adhesively attached EDPM membrane.

B. Area #2 & #4 (Jail/Courtroom & Main Courthouse Roof); After above removal process, mechanically attach new layer if 1 1/2" ISO insulation followed by new adhesively attached cover board and adhesively attached EDPM membrane.

C. Area #3 above (skylight curbs); After removal of all existing built-up material, mechanically attach new fire treated wood blocking at perimeter outside edge of roof for installation on 1 1/2 " IOS insulation, mechanically attached, followed by new adhesively attached cover board and adhesively attached EDPM membrane.

3.5 ROOFING INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions, FM Approval assembly requirements.

B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing. Install roof membrane and auxiliary materials to tie in to existing roofing to maintain weather tightness of transition.

C. Sheet metal flashing and trim:
   1. Parapet Wall with termination bar and counterflashing; Fasten continuous 24-gauge counterflashing over aluminum termination bar.
   2. Roof edge with gutter material;
      a. Fasten 24-gauge Prefinished fascia.
      b. Fasten 24-gauge Prefinished gutter and downspouts
      c. Fasten 24-gauge Prefinished drip edge into gutter
      d. Curbs; Fasten aluminum termination bar

3.6 MISCELLANEOUS & WOOD BLOCKING

A. Parapet coping stone
   1. Prepare coping stone and apply rubberized coating system. See Section 017363 - Elastomeric Roof Coating.

B. Add wood blocking to the curbs that need to have a higher clearance due to the new insulation height per manufactures requirements

C. Add wood blocking to the roof edge as necessary to match the new insulation height

D. Replace any deteriorated wood blocking with new treated wood.

3.7. INSULATION INSTALLATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation *or* left exposed at end of workday.

B. Comply with roofing system and insulation manufacturer's written instructions for installing roof system to base material.

3.8 COVER BOARD INSTALLATION

A. Adhesive Attachment: Apply in accordance with membrane manufacturer’s instructions and recommendations; "walk-in" individual roof insulation boards to obtain maximum adhesive contact.

B. Install only as much insulation as can be covered with the completed roofing system before the end of the day’s work or before the onset of inclement weather.

C Lay roof insulation in courses parallel to roof edges.

D. Neatly and tightly fit insulation to all penetrations, projections, gaps not greater than 1/4 inch (6 mm). Fill gaps greater than 1/4 inch (6 mm) with acceptable insulation. Do not leave the roofing membrane unsupported over a space greater than 1/4 inch (6 mm).

3.9 ADHERED ROOFING INSTALLATION

A. Adhere root membrane over area to receive roofing according to roofing system manufacturer's written instructions.

B. Unroll membrane roof membrane and allow to relax before installing.

C. Start installation of roofing in presence of roofing system manufacturer's technical personnel.

D. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

E. Bonding Adhesive: Apply to substrate and underside of roof membrane at rate required by manufacturer, and allow to partially dry before installing roof membrane. Do not apply to splice area of roof membrane.

F. Roof Membrane Adhesive: Apply to substrate at rate required by manufacturer, and install fabric-backed roof membrane.

G. Apply roof membrane with side laps shingled with slope of roof deck where possible.

H. Adhesive Seam Installation: Clean both faces of splice areas, apply splicing cement.

1. Firmly roll side and end laps of overlapping roof membrane to ensure a watertight seam installation.

2. Apply lap sealant and seal exposed edges of rooting terminations.

3. Apply a continuous bead of in-seam sealant before closing splice if required by roofing system manufacturer.

I. Spread sealant or mastic bed over deck-drain flange at roof drains, and securely seal roof membrane in place with clamping ring.

J. In-Splice Attachment: Secure one edge of roof membrane using fastening plates or metal battens centered within splice, and mechanically fasten roof membrane to roof deck. Field *splice seam.*

K. Through-Membrane Attachment: Secure roofing *using* fastening plates or metal battens, and mechanically fasten *root* membrane to roof deck. Cover battens and fasteners with a continuous cover strip.

L Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area offlashing.

M. Flash penetrations and field-formed inside and outside corners with cured or *uncured* sheet flashing,

N. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.

0 Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.10 WALKWAY INSTALLATION

A. Flexible Walkways: Install walkway products according to manufacturer's written instructions.

1. Install walkways at access points to the roof, around roof top equipment that may require maintenance,
2. Provide 6-inch (76-mm) clearance between adjoining pads.
3. Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer’s written instructions.

3.11 PROTECTING AND CLEANING

A Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing system, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with *copies* to Architect and Owner.

B Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075323

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Formed roof-drainage sheet metal fabrications.
2. Formed low-slope roof sheet metal fabrications.
3. Parapet wall flashing.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For sheet metal flashing and trim.

1. Include plans, elevations, sections, and attachment details.
2. Distinguish between shop- and field-assembled work.
3. Include identification of finish for each item.
4. Include pattern of seams and details of termination points, expansion joints and expansion-joint covers, direction of expansion, roof-penetration flashing, and connections to adjoining work.

C. Samples: For each exposed product and for each color and texture specified.

1.3 INFORMATIONAL SUBMITTALS

A. Product certificates.

B. Product test reports.

C. Sample warranty.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Finish warranty executed/signed.

1.5 QUALITY ASSURANCE

A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.

1.6 WARRANTY

A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: 35 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Sheet metal flashing and trim assemblies 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. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. SPRI Wind Design Standard: Manufacture and install copings and roof edge flashings tested according to SPRI ES-1 and capable of resisting the following design pressure:

1. Design Pressure: 17.2psf.

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 SHEET METALS

A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet according to ASTM A 653/A 653M, G90 coating designation or aluminum-zinc alloy-coated steel sheet according to ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40; prepainted by coil-coating process to comply with ASTM A 755/A 755M.
1. Exposed Coil-Coated Finish:
    a. Three-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
2. Parapet wall with termination bar and counterflashing
    a. Fasten continuous 24-gauage counterflashing over aluminum termination bar.

3. Roof edge with gutter material:
   a. Fasten 24-gauge Prefinished fascia.
   b. Fasten 24-gauge Prefinished gutter and downspouts.
   c.. Fasten 24-gauge Prefinished drip edge into gutter.
4. Curbs
   a. Fasten aluminum termination bar

5. Color: Basis-of-design: selected from the manufacturer standard colors to match existing.

2.3 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item 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 or manufactured item.

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. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
   b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
   c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329.

C. Wood blocking:
1. Add treated wood blocking to the curbs that need to have a higher clearance due to the new insulation height per manufactures requirements
2. Add treated wood blocking to the roof edge as necessary to match the new insulation height
3. Replace any deteriorated wood blocking with new treated wood on a time and material basis

2.4 FABRICATION, GENERAL

A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.

1. Obtain field measurements for accurate fit before shop fabrication.
2. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.

3. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.

B. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.

1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
2. Use lapped expansion joints only where indicated on Drawings.

C. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.

D. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

E. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.

F. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.

PART 3 - EXECUTION

3.1 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, 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, levels, and slopes. 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. Space cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
5. Torch cutting of sheet metal flashing and trim is not permitted.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Coat concealed side of stainless-steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.

1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.

D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Seal joints as required for watertight construction. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

G. Rivets: Rivet joints in uncoated aluminum where necessary for strength.

3.2 ROOF FLASHING INSTALLATION

A. General: Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and cited sheet metal standard. Provide concealed fasteners where possible, and set units true to line, levels, and slopes. Install work with laps, joints, and seams that are permanently watertight and weather resistant.

B. Roof Edge Flashing: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate.

C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches over base flashing. Install stainless-steel draw band and tighten.

3.3 WALL FLASHING INSTALLATION

A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of parapet wall aluminum termination bar.

3.4 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.

END OF SECTION 076200

DIVISION 09

DIVISION 09

Alternate No. 1

SECTION 099123 – PAINTING (HIGH PERFORMANCE COATING)

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes surface preparation and the application of paint and coating systems on the following substrates:
   1. Steel
   2. Galvanized Metal

B. High-Performance Architectural coatings are included in this Section.

C. Paint all exposed-to-view exterior steel surfaces at the following locations;
   1. Exterior surface of door and frame located on West wall of penthouse and East wall of elevator penthouse.
   2. All exterior window frames/mullions and steel window bars located on the penthouse walls.
   3. All surfaces of the steel access ladder, treads, stringers and handrails from the main roof to the main roof level, full height of North existing fire escape ladder/roof access stair, treads, stringers, steel bracing to wall, landings, handrails, over parapet landing/steps in its' entirety and ladder mounted on the South elevator penthouse wall leading to the elevator room roof.
   4. Metal window shade at the East elevation of the penthouse on one window.
   5. All steel window frames/mullions at the elevator penthouse and elevator equipment room walls.

D. All aluminum surfaces shall not be painted.

E. Color shall be as selected from the manufacturer's standard colors available.

1.2 RELATED DOCUMENTS

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

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples: Draw downs for each finish and for each color and texture required. (Paint color schedule may be found on Drawings.)

C. Product List: Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

D. Product data sheets for High Performance Coatings.

1.4 QUALITY ASSURANCE

A. MPI Standards:

1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

B. A Pre-installation Conference is required prior to commencing on-site work.

1. Required participants: General Contractor site superintendant; Subcontractor and Installer site foreman.
2. Schedule conference after submittals have been reviewed and in a timely fashion to prevent delay of work or work of other trades.
3. Conference may be conducted via a phone teleconference if site conditions have been inspected and accepted by Installing Contractor.

1.5 DEFINITIONS

A. Standard coating terms defined in ASTM D 523 apply to this Section.
1. Semi-gloss refers to medium-sheen finish with a gloss range between 35 and 70 units when measured at a 60-degree meter.

1.6 EXTRA MATERIALS

A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.

1. Quantity: Furnish an additional one (1) gal. container of paint for Owner’s maintenance stock of each color and type of paint used on project. Each container clearly labeled with color and date.

PART 2 - PRODUCTS

2.1 PAINT, GENERAL

A. Material Compatibility: Basis-of-Design shall be Tnemec or equal.

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

2.2 WINDOW TRIM/BARS:

A. Primer; Protuff Mastic Series 132.

B. Top Coat; Endura-Shield Series 1095

2.3 METAL STAIRS/LADDERS AND FIRE ESCAPE:

A. Primer; Uni-Bond DF Series 115

B. Top Coat; Enduratone Series 1029

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

C. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.

1. Coating application constitutes Contractor's acceptance of substrates and conditions and waiver of any claim the surfaces or conditions are unsuitable.

3.2 PREPARATION AND APPLICATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.

B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.

C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

D. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

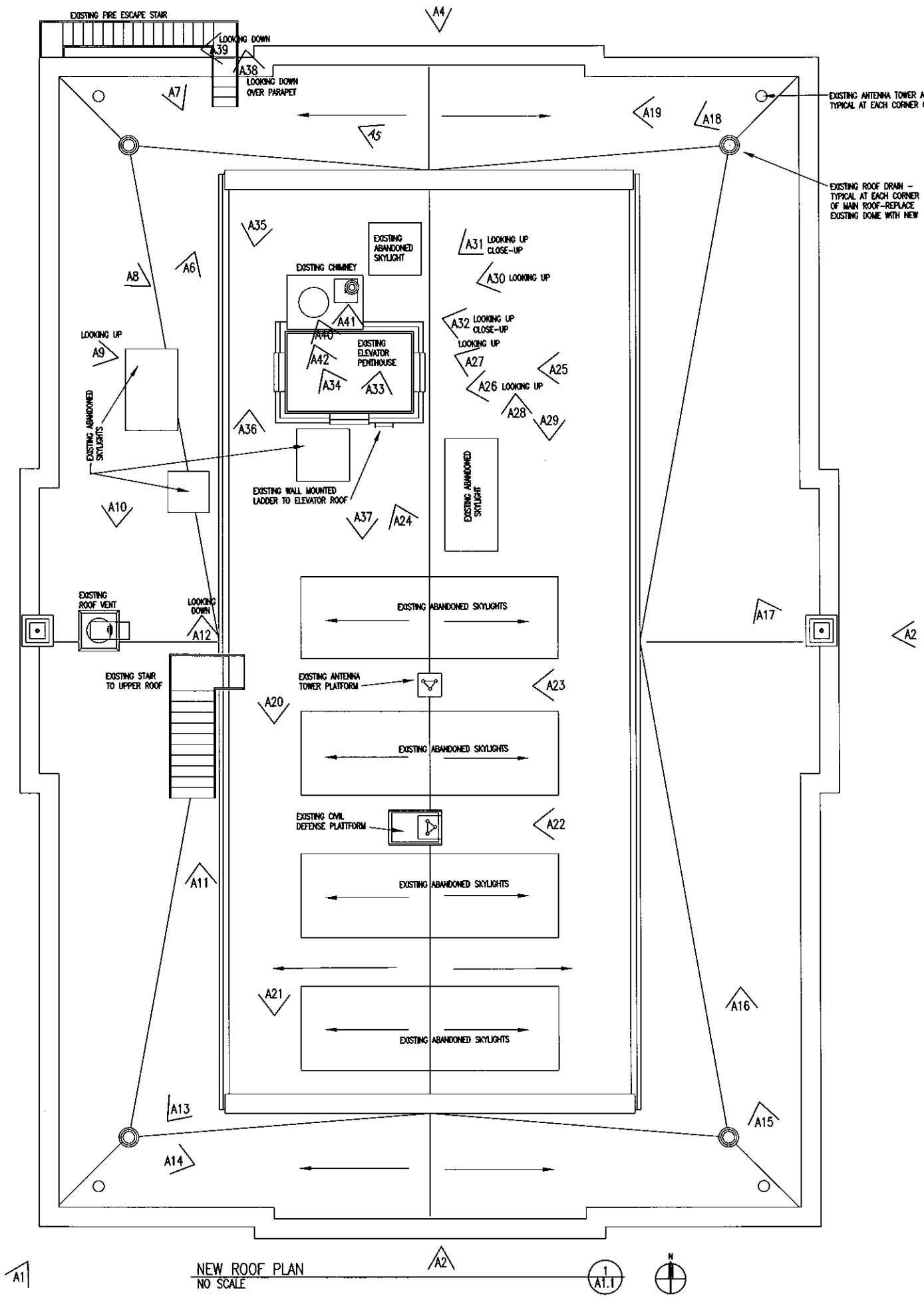
E. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.3 **PAINTING SCHEDULE**

A. Apply coats if required to attain manufacturer’s minimum dft and/or a finish with uniform color, sheen and appearance.

B. Prep all surfaces ad directed by manufacturer for best adhesion.

END OF SECTION 09912



NEW ROOF PLAN
NO SCALE

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Notes:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS & DIMENSIONS PRIOR TO STARTING THE CONSTRUCTION WORK.
2. CONTRACTOR SHALL PROTECT ALL EXISTING SURFACES DURING CONSTRUCTION & SHALL BE SOLELY RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT OF ANY DAMAGE DONE BY WORK.
3. PROVIDE AND MAINTAIN DUST PARTITIONS TO CONTAIN DUST FROM ENTERING THE INSIDE OF THE BUILDING. MAINTAIN PASSAGEWAYS TO ALL EXITS DURING ALL PHASES OF CONSTRUCTION.
4. ALL EXISTING EXTERIOR ELECTRICAL CONDUIT/WIRING SHALL BE MOVED BUT NOT DISCONNECTED DURING CONSTRUCTION.
5. CONTRACTOR SHALL PROTECT ALL EXISTING SURFACES DURING CONSTRUCTION & SHALL BE SOLELY RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT OF ANY DAMAGE DONE BY WORK.
6. SEE PROJECT MANUAL FOR ALL SPECIFICATIONS AND EXISTING PHOTOGRAPH DOCUMENTATION INDICATING SCOPE–OF–WORK.

NOTE:
SEE LARGER 30" X 42" DRAWING FOR BETTER DETAIL

REV.	DESCRIPTION	DATE

RICHARDSON COUNTY COURTHOUSE

ROOF REPLACEMENT

1700 STONE STREET
FALLS CITY, NEBRASKA 68355

PLANNING ARCHITECTURE ENGINEERING
PROCHASKA & ASSOCIATES
INTERIORS & FACILITY MANAGEMENT
11317 CHICAGO CIRCLE · OMAHA, NEBRASKA 68154-2623
PHONE: 402.334.6700 FAX: 402.334.8868 E-MAIL: info@prochaska.us

NEW ROOF PLAN

Date: 12/12/2022 Project No. 222303
Designed By:
Drawn By:
Checked By:

A1.1

EXISTING RADIO ANTENNA TO REMAIN

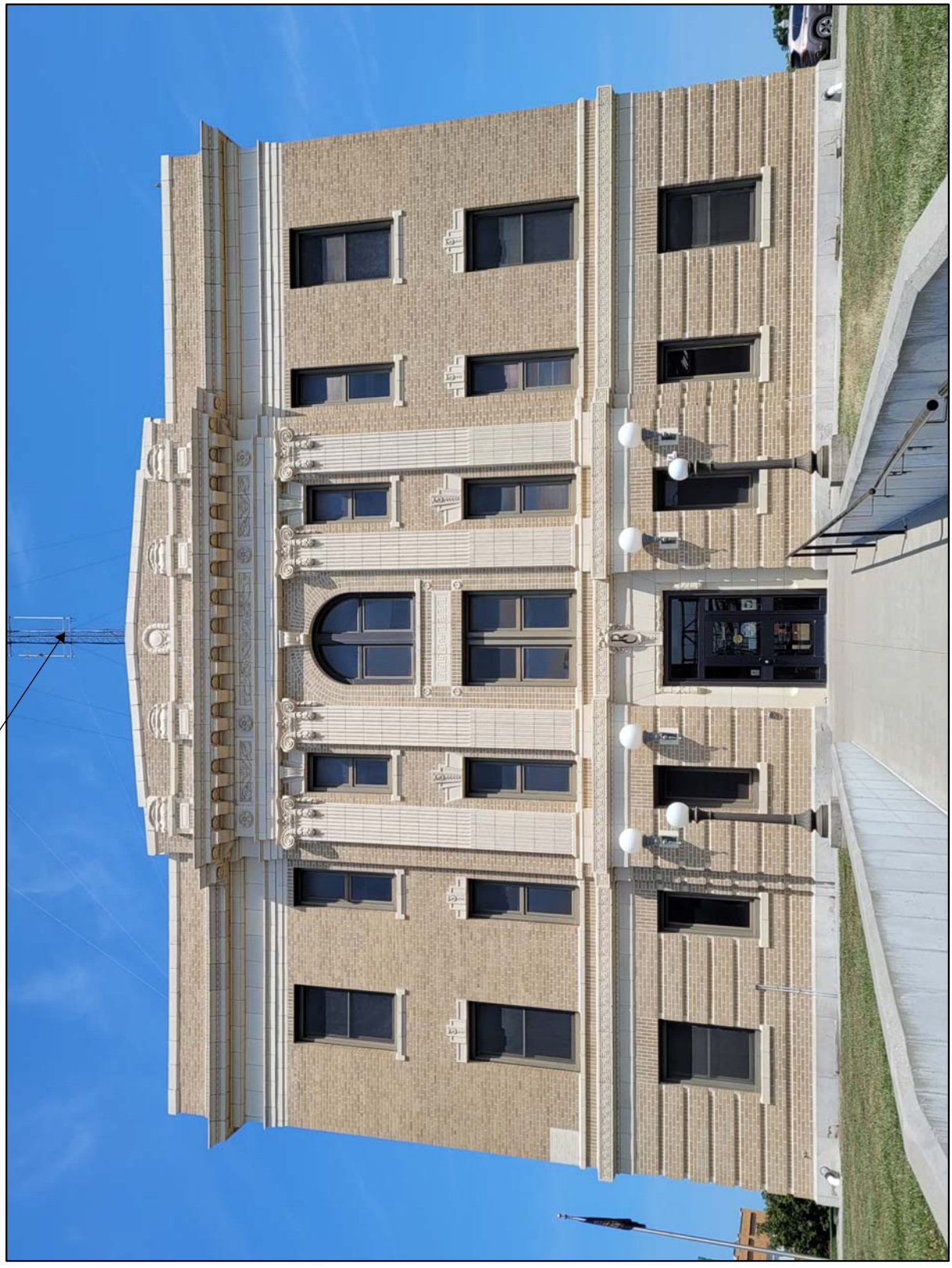
SOUTHWEST ELEVATION

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

PLANNING ARCHITECTURE ENGINEERING
PROCHASKA & ASSOCIATES
INTERIORS & FACILITY MANAGEMENT
11317 CHICAGO CIRCLE OMAHA, NEBRASKA 68154-2633
PHONE: 402.334.0755 FAX: 402.334.0868 E-MAIL: mail@prochaska.us

Sheet:
A1



EXISTING RADIO ANTENNA TO REMAIN

SOUTH ELEVATION

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
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PHONE: 402.334.0755 FAX: 402.334.0868 E-MAIL: mail@prochaska.us

Sheet:
A2

EXISTING RADIO ANTENNA TO REMAIN

EAST ELEVATION

Date:
12-12 – 2022
Project No.
222302

Project:
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Sheet:
A3

EXISTING STEEL FIRE ESCAPE
TO BE PAINTED IN ITS'
ENTIRETY - ALTERMATE #1

EXISTING RADIO ANTENNA TO REMAIN

NORTH ELEVATION

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
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Sheet:
A4

WALK OVER STEPS AT NORTH PARAPET WALL

Date: 12-12-2022 Project No. 222302	Project: RICHARDSON COUNTY COURTHOUSE ROOF REPLACEMENT 1700 Stone Street, Falls City, NE	PLANNING ARCHITECTURE ENGINEERING PROCHASKA & ASSOCIATES INTERIORS & FACILITY MANAGEMENT 11317 CHICAGO CIRCLE OMAHA, NEBRASKA 68154-2633 PHONE: 402.334.0755 FAX: 402.334.0868 E-MAIL: mail@prochaska.us	Sheet: A5

WEST/NORTHWEST CORNER OF PENTHOUSE

Date:
12-12 –2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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PHONE: 402.334.0755 FAX: 402.334.0868 E-MAIL: mail@prochaska.us

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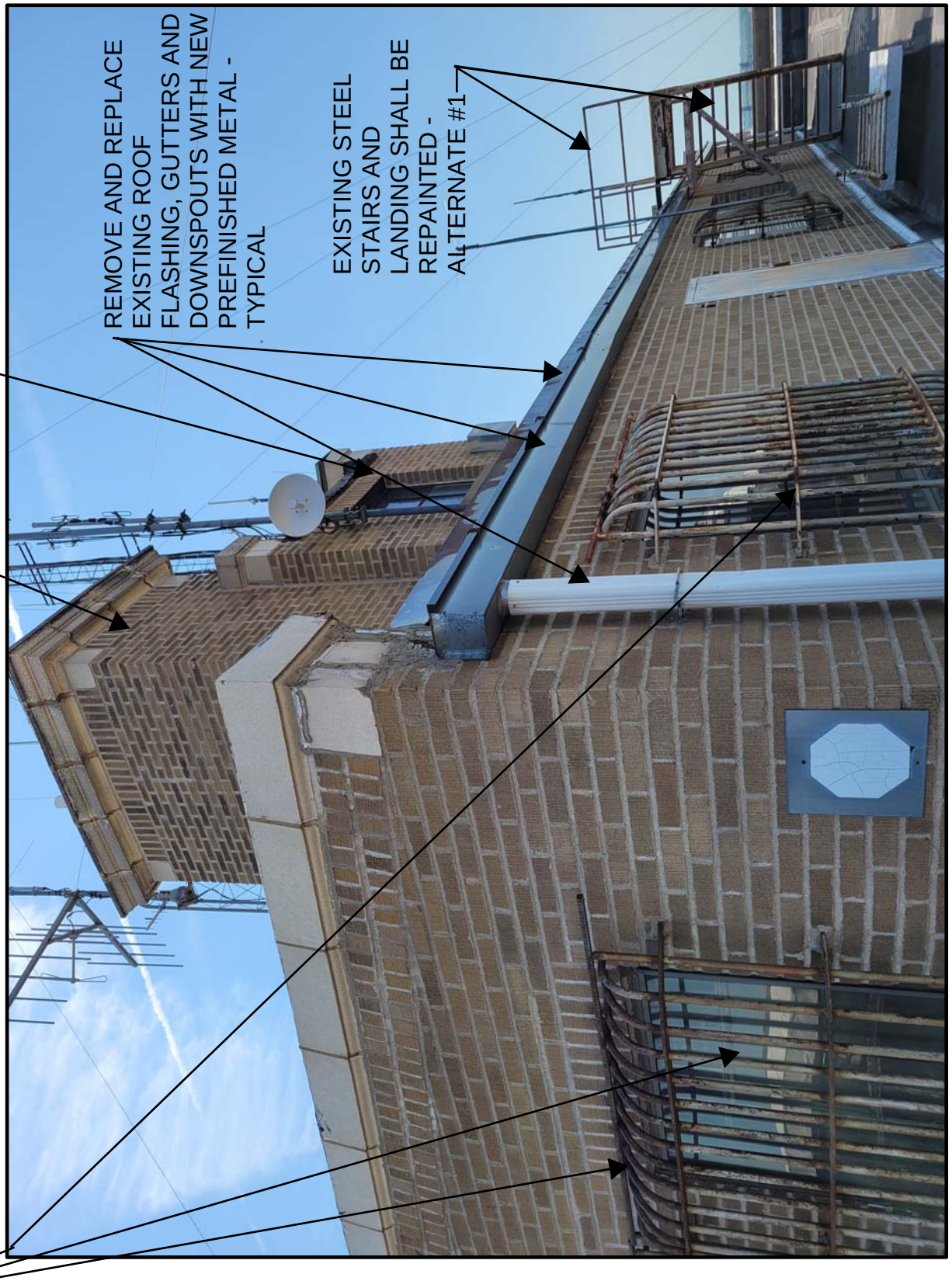

NORTH/NORTHWEST CORNER OF PENTHOUSE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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Sheet:
A7

WEST SIDE OF PENTHOUSE

Date:
12-12 –2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
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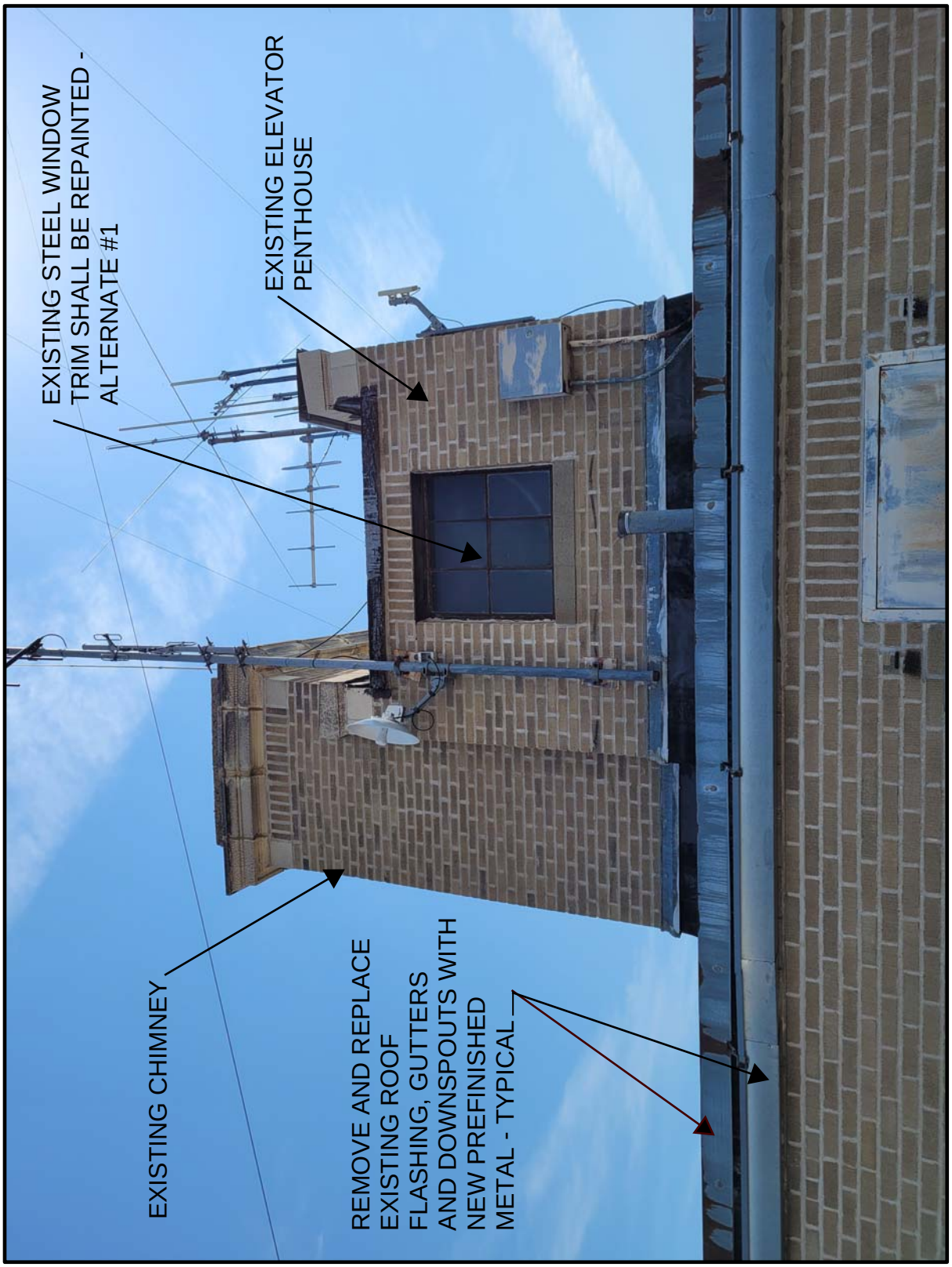

WEST SIDE OF ELEVATOR PENTHOUSE

Date:
12-12 –2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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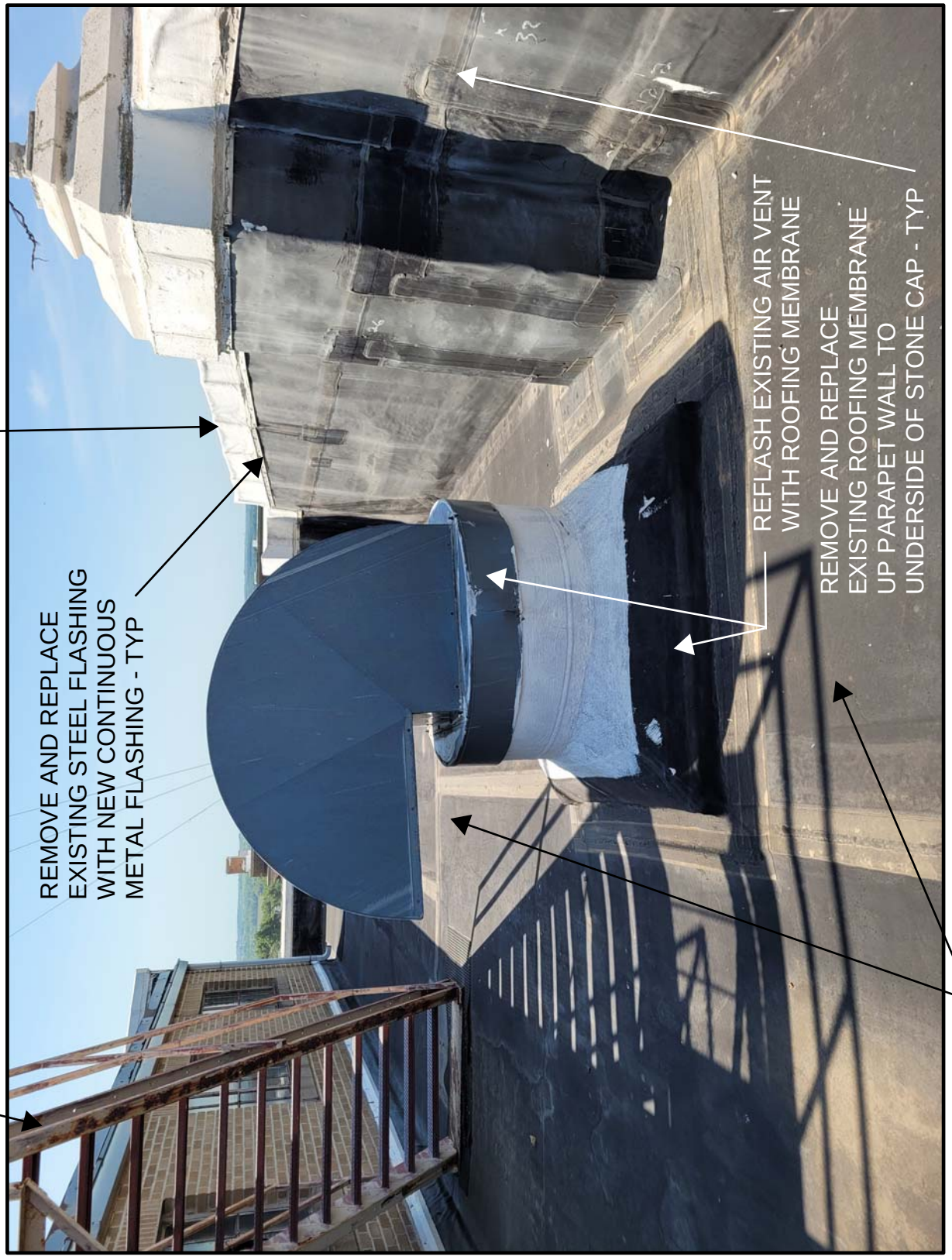

VIEW LOOKING SOUTH AT WEST SIDE OF MAIN ROOF

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
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A10

VIEW LOOKING NORTH AT WEST SIDE OF MAIN ROOF

Date:
12-12-2022
Project No.
222302

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RICHARDSON COUNTY COURTHOUSE
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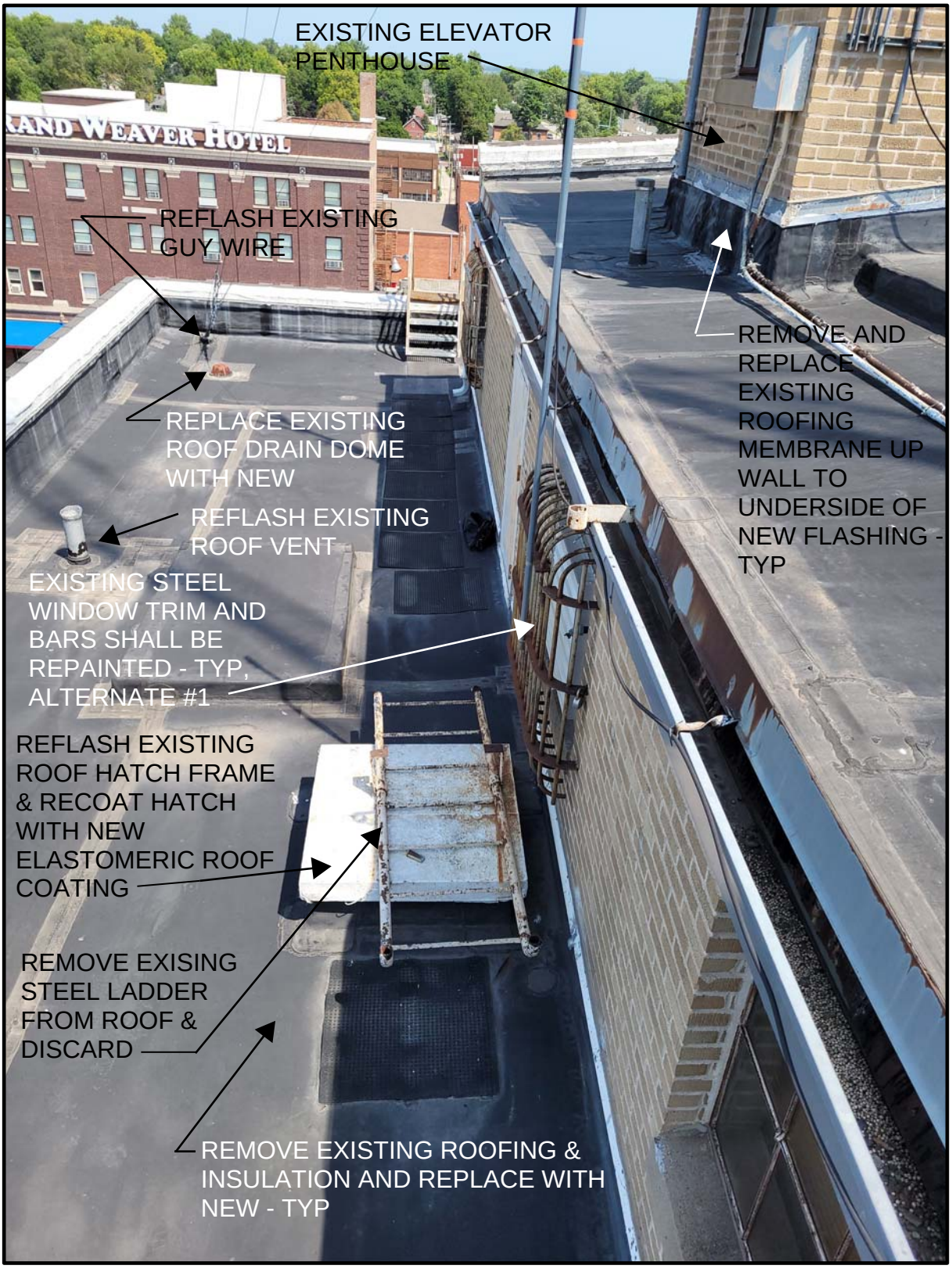

VIEW LOOKING NORTH AT WEST SIDE OF MAIN ROOF

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
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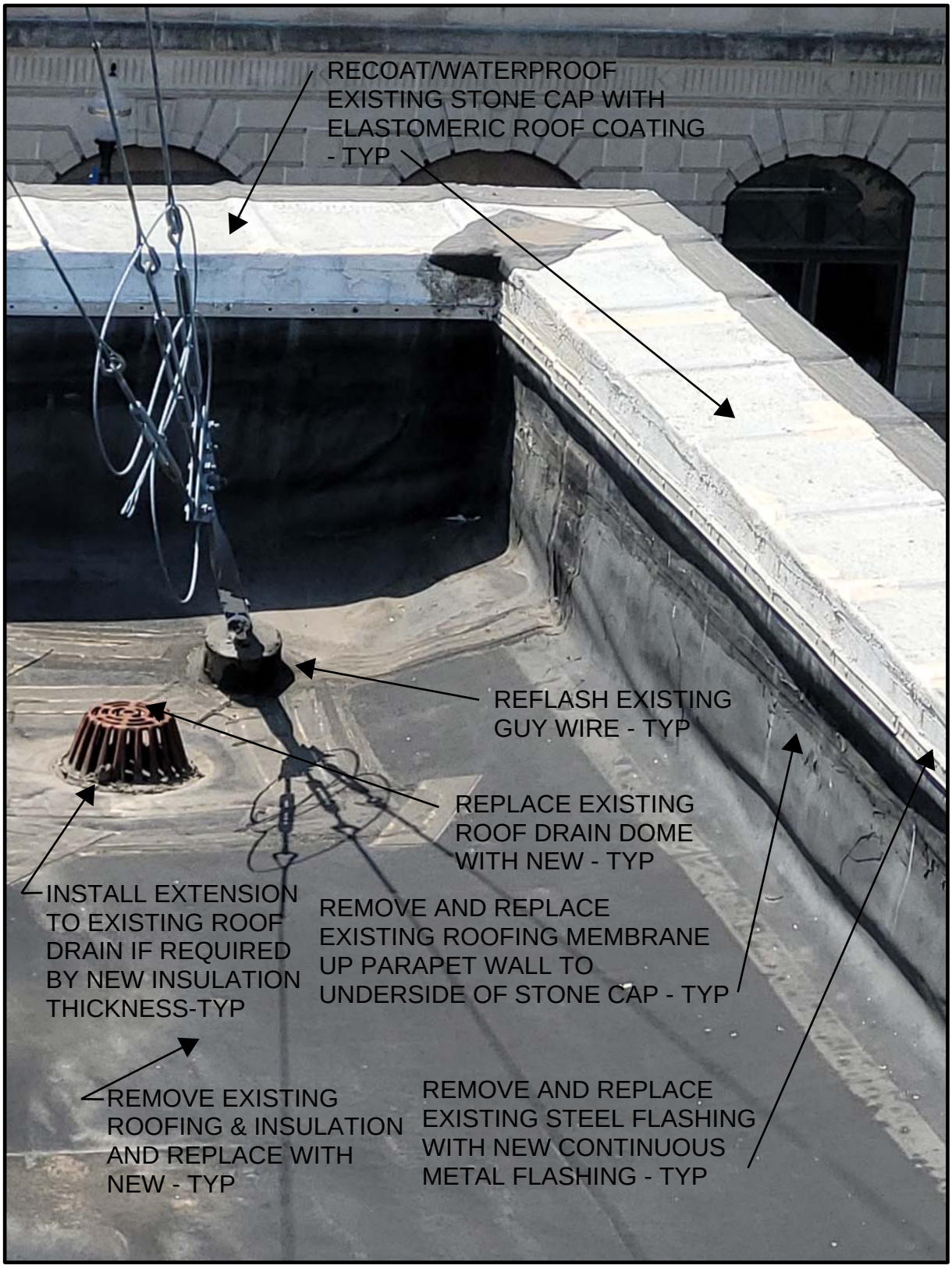

SOUTHWEST CORNER AT MAIN ROOF DRAIN – TYP @ EACH CORNER

Date: 12-12-2022
Project No. 222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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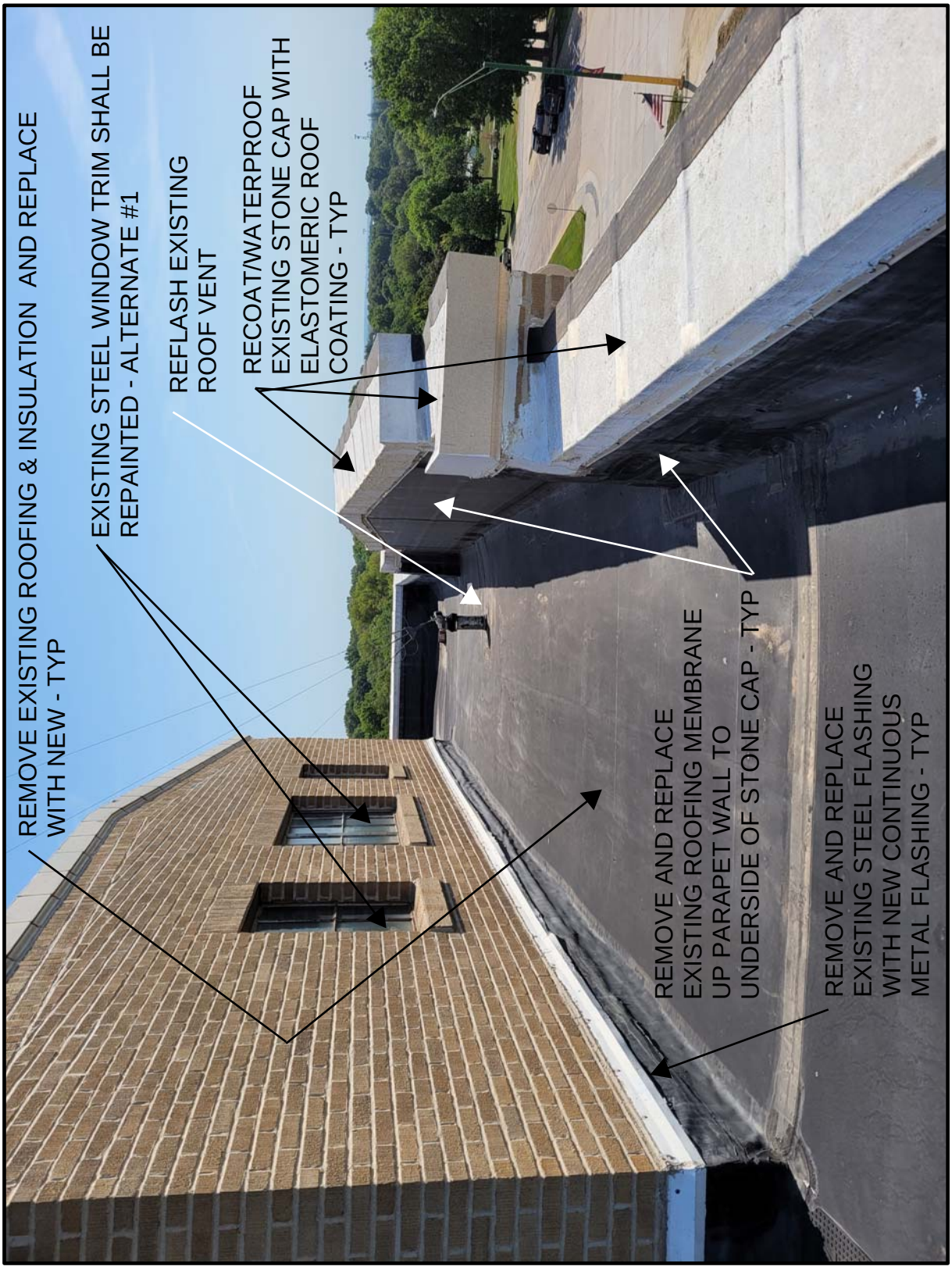

LOOKING EAST AT SOUTH PENTHOUSE WALL

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
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1700 Stone Street, Falls City, NE

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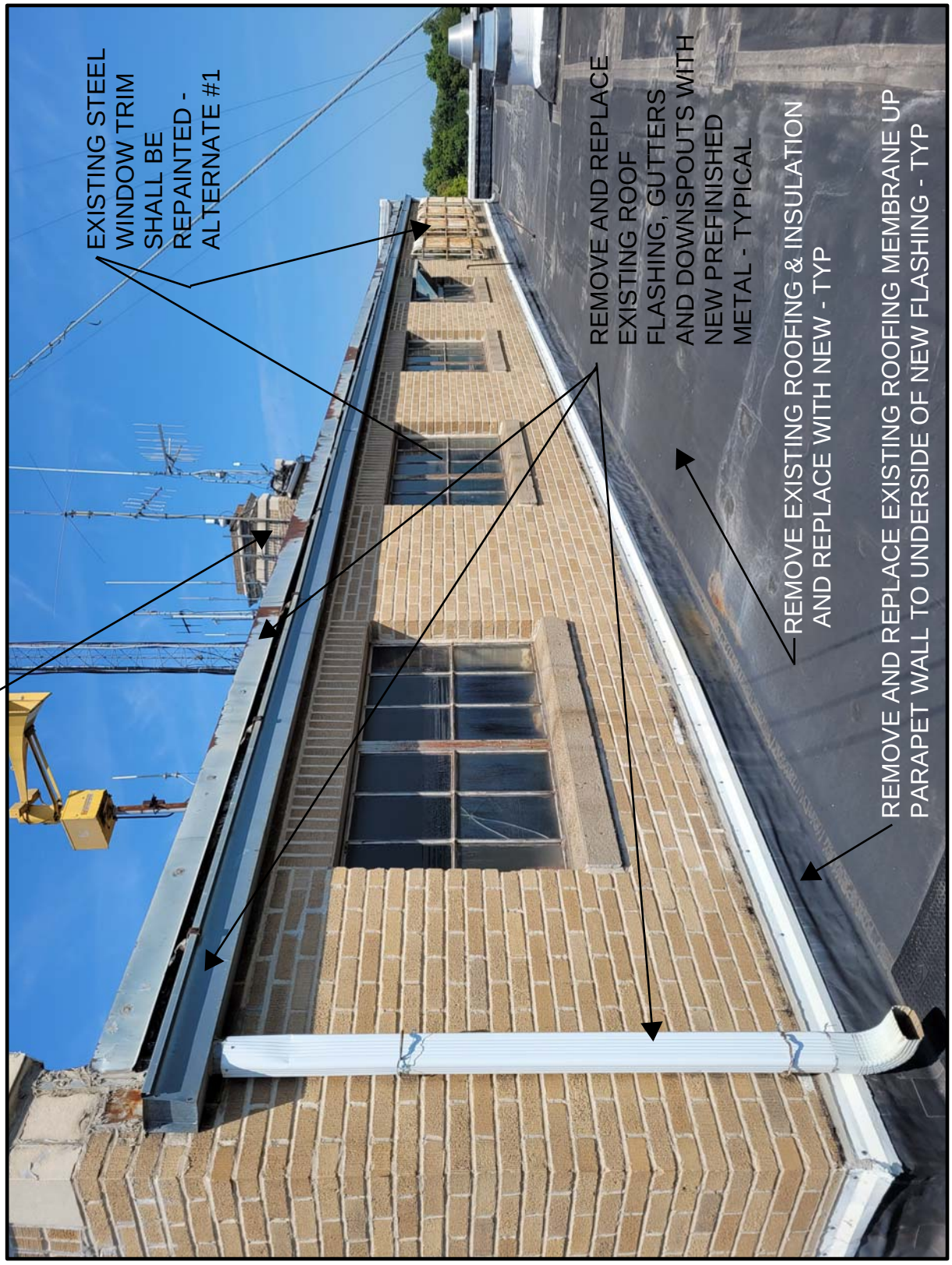

VIEW LOOKING NORTH OF EAST SIDE OF PENTHOUSE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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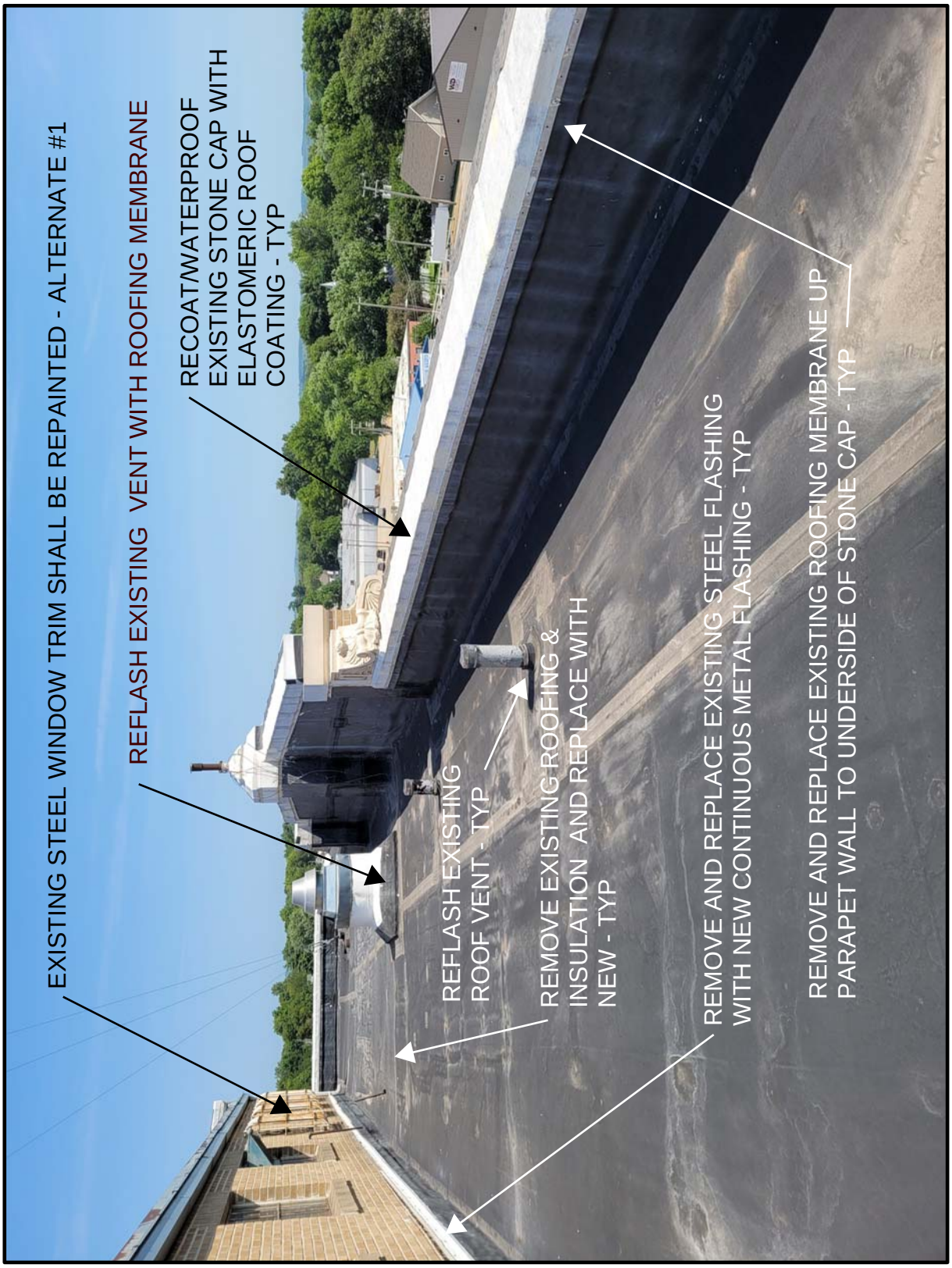

VIEW LOOKING NORTH OF EAST SIDE OF PENTHOUSE

Date:
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222302

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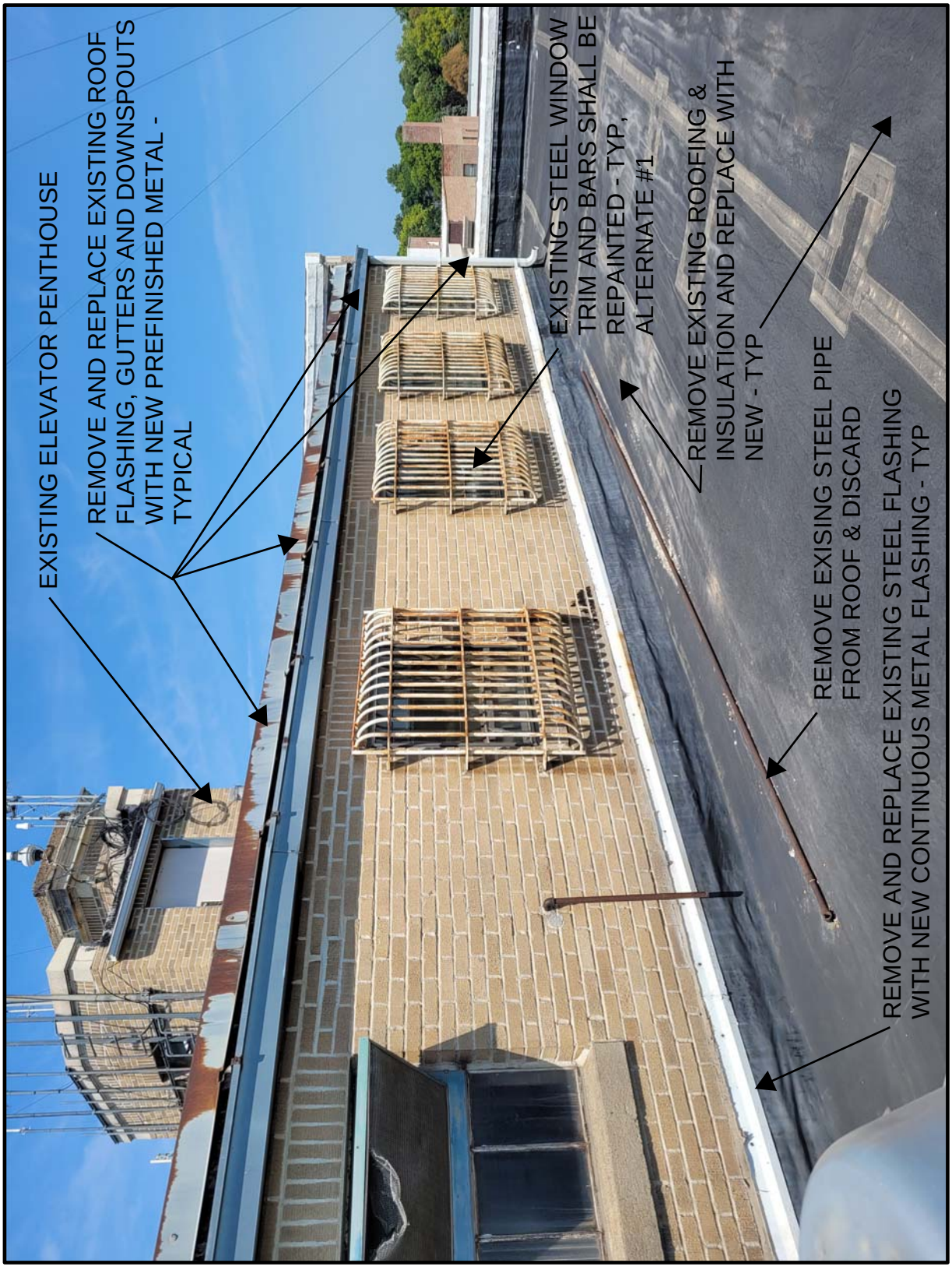

NORTHEAST SIDE OF PENTHOUSE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

PLANNING ARCHITECTURE ENGINEERING
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Sheet:
A17

LOOKING WEST AT NORTH SIDE OF PENTHOUSE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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A18

LOOKING WEST AT NORTH PARAPET

Date:
12-12-2022
Project No.
222302

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A19

LOOKING SOUTH AT PENTHOUSE ROOF

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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Sheet:
A20

LOOKING SOUTH AT PENTHOUSE PARAPET WALL

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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11317 CHICAGO CIRCLE OMAHA, NEBRASKA 68154-2633
PHONE: 402.334.0755 FAX: 402.334.0868 E-MAIL: mail@prochaska.us

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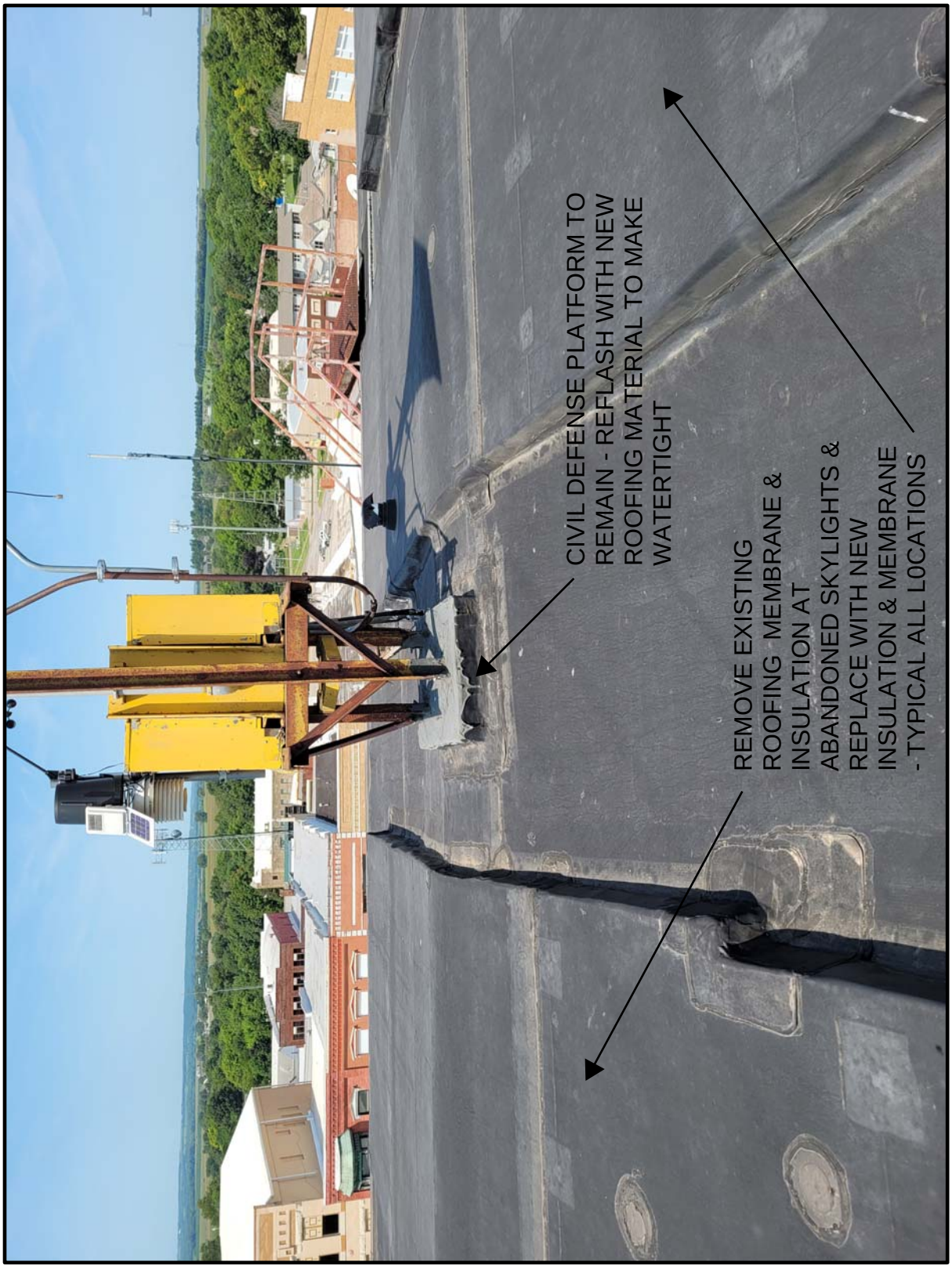

LOOKING WEST AT CIVIL DEFENSE PLATFORM/BASE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
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PLANNING ARCHITECTURE ENGINEERING
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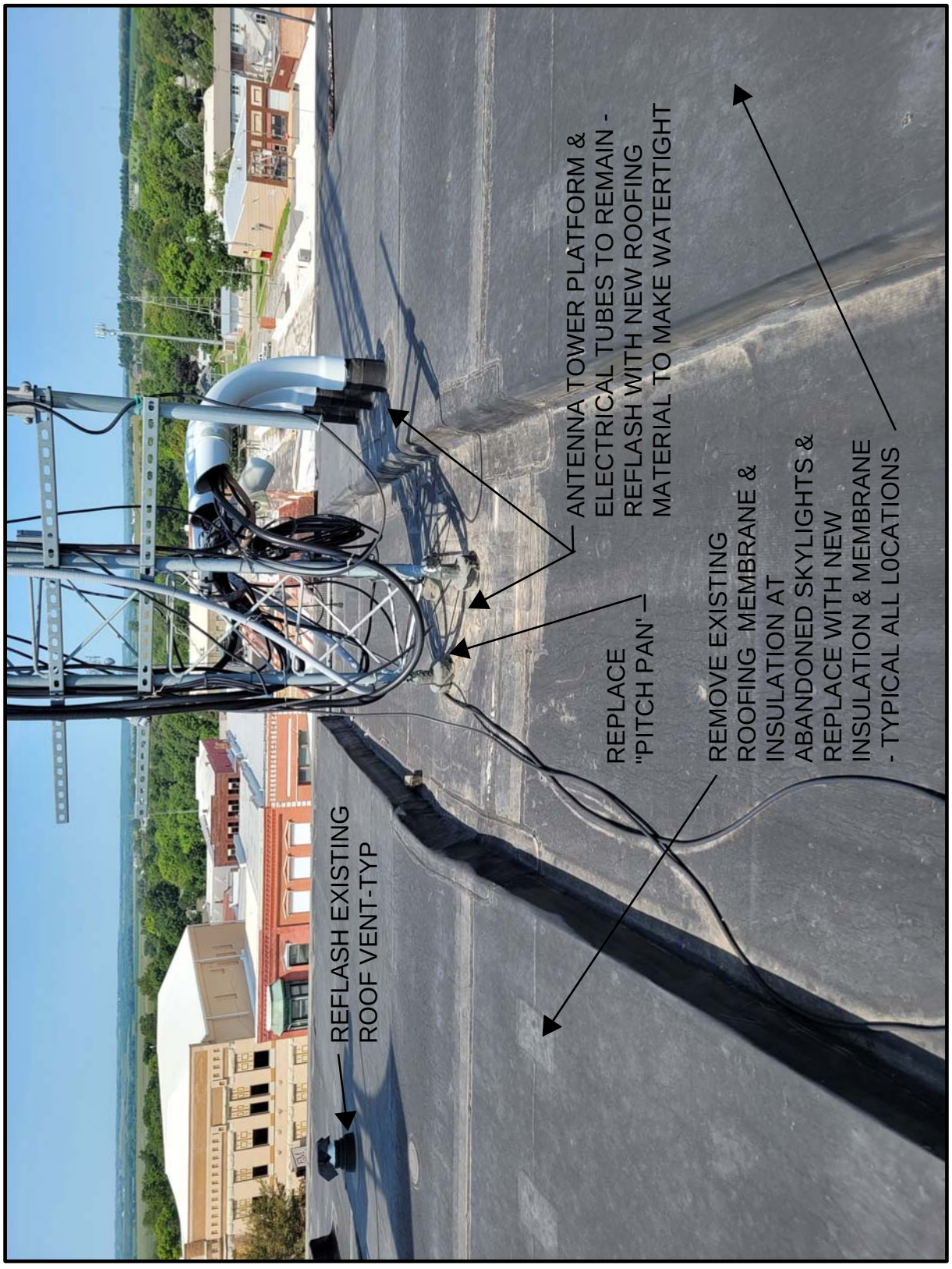

LOOKING WEST AT RADIO ANTENNA PLATFORM/BASE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
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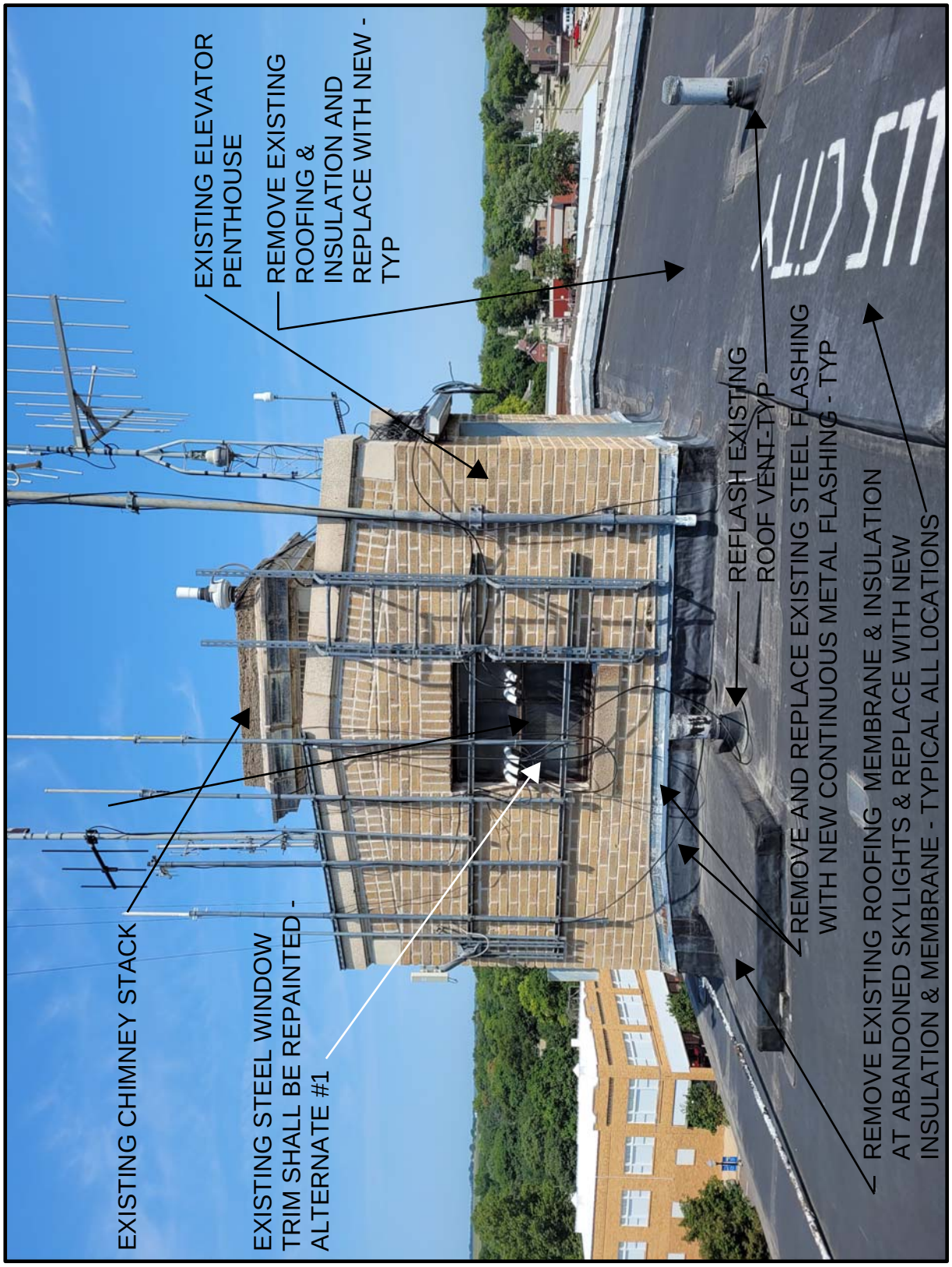

SOUTH ELEVATION OF ELEVATOR PENTHOUSE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

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Sheet:
A24

EAST ELEVATION OF ELEVATOR PENTHOUSE

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

PLANNING ARCHITECTURE ENGINEERING
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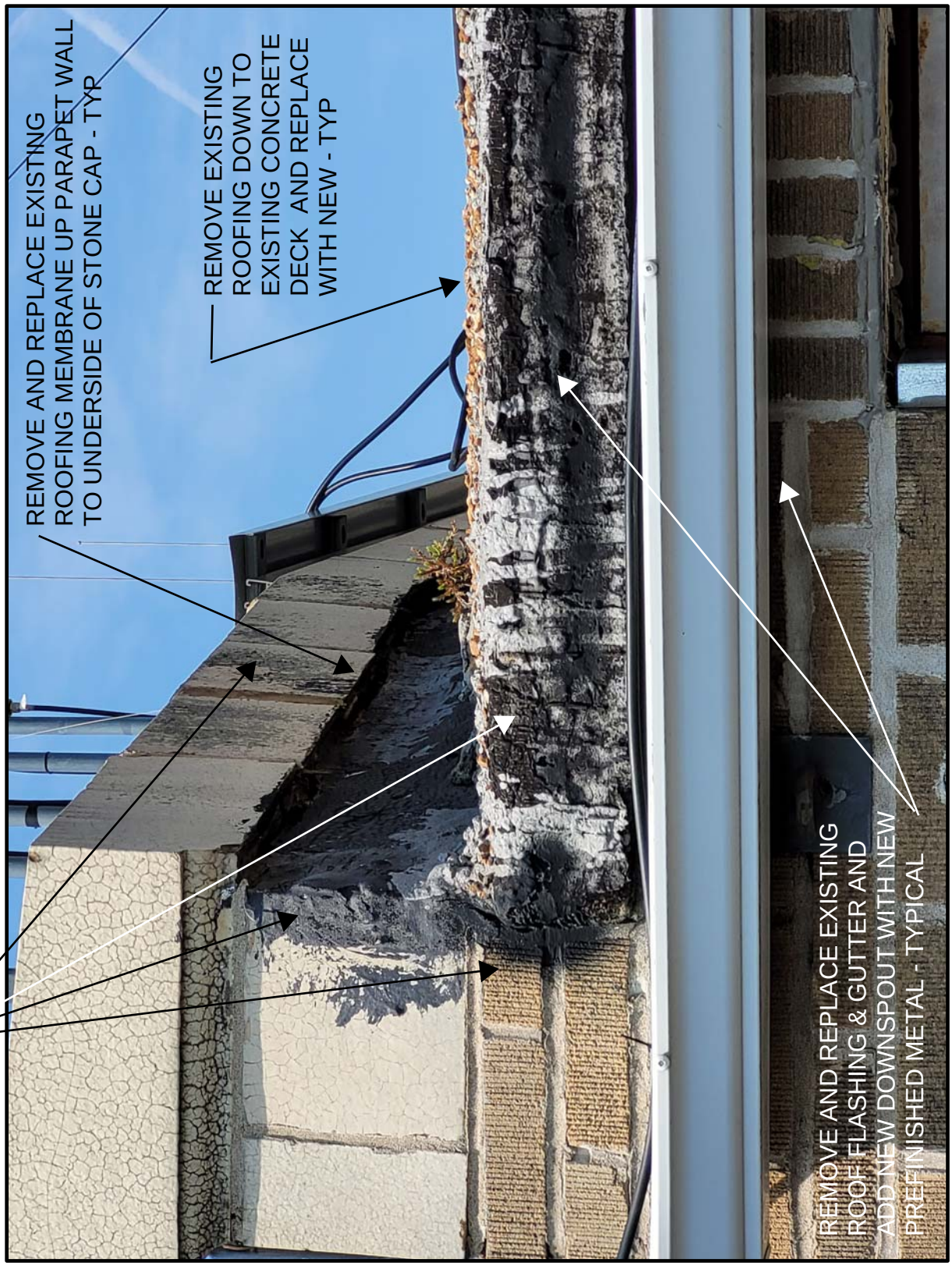
Sheet:
A25



SOUTH PARAPET WALL OF ELEVATOR PENTHOUSE ROOF

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

PLANNING ARCHITECTURE ENGINEERING
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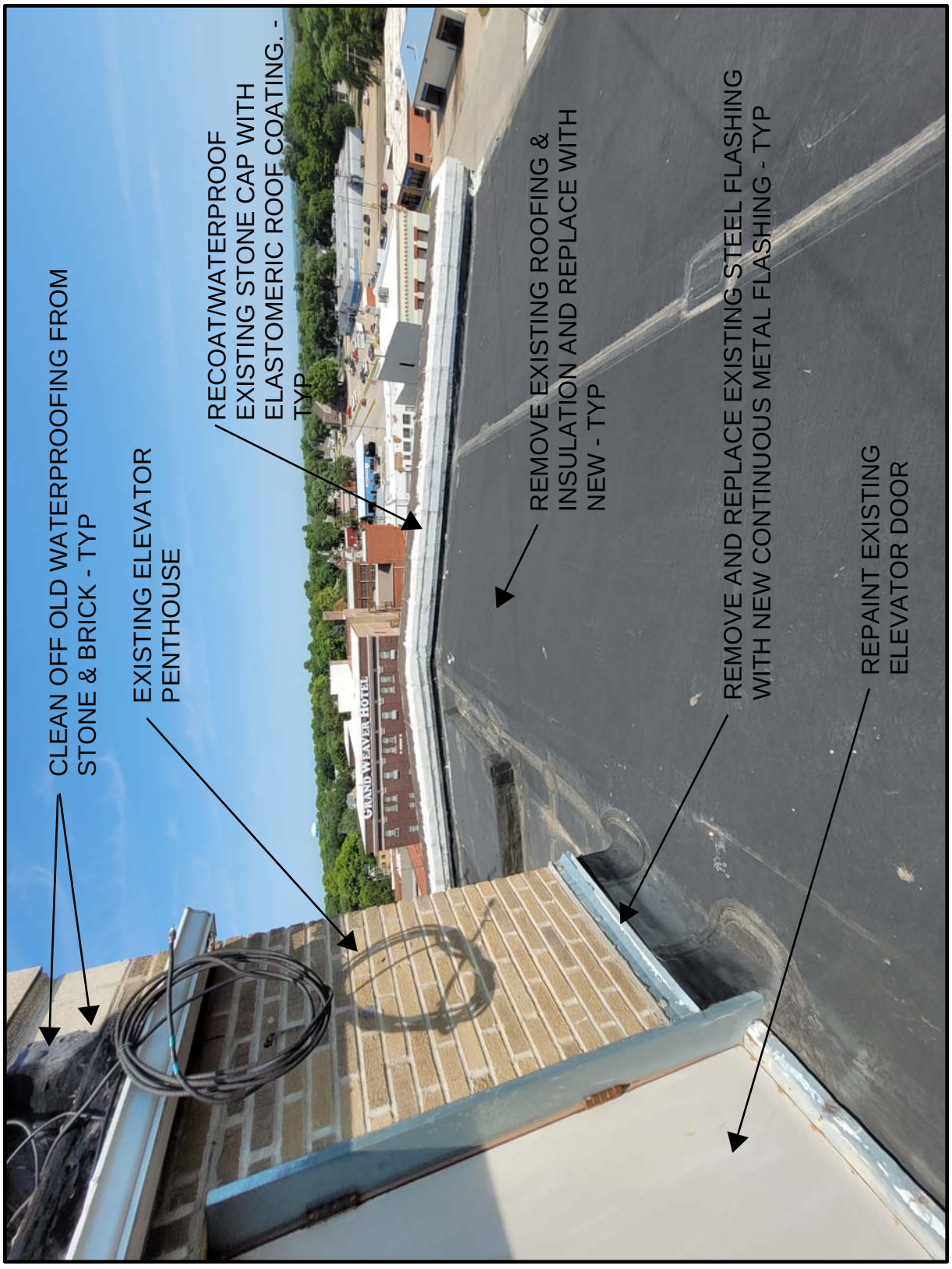
NORTH PARAPET WALL OF ELEVATOR PENTHOUSE ROOF

Date:
12-12-2022
Project No.
222302

Project:
RICHARDSON COUNTY COURTHOUSE
ROOF REPLACEMENT
1700 Stone Street, Falls City, NE

PLANNING ARCHITECTURE ENGINEERING
PROCHASKA & ASSOCIATES
INTERIORS & FACILITY MANAGEMENT
11317 CHICAGO CIRCLE OMAHA, NEBRASKA 68154-2633
PHONE: 402.334.0755 FAX: 402.334.0868 E-MAIL: mail@prochaska.us

Sheet:
A27



LOOKING NORTH AT PENTHOUSE PARAPET WALL

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12-12-2022
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222302

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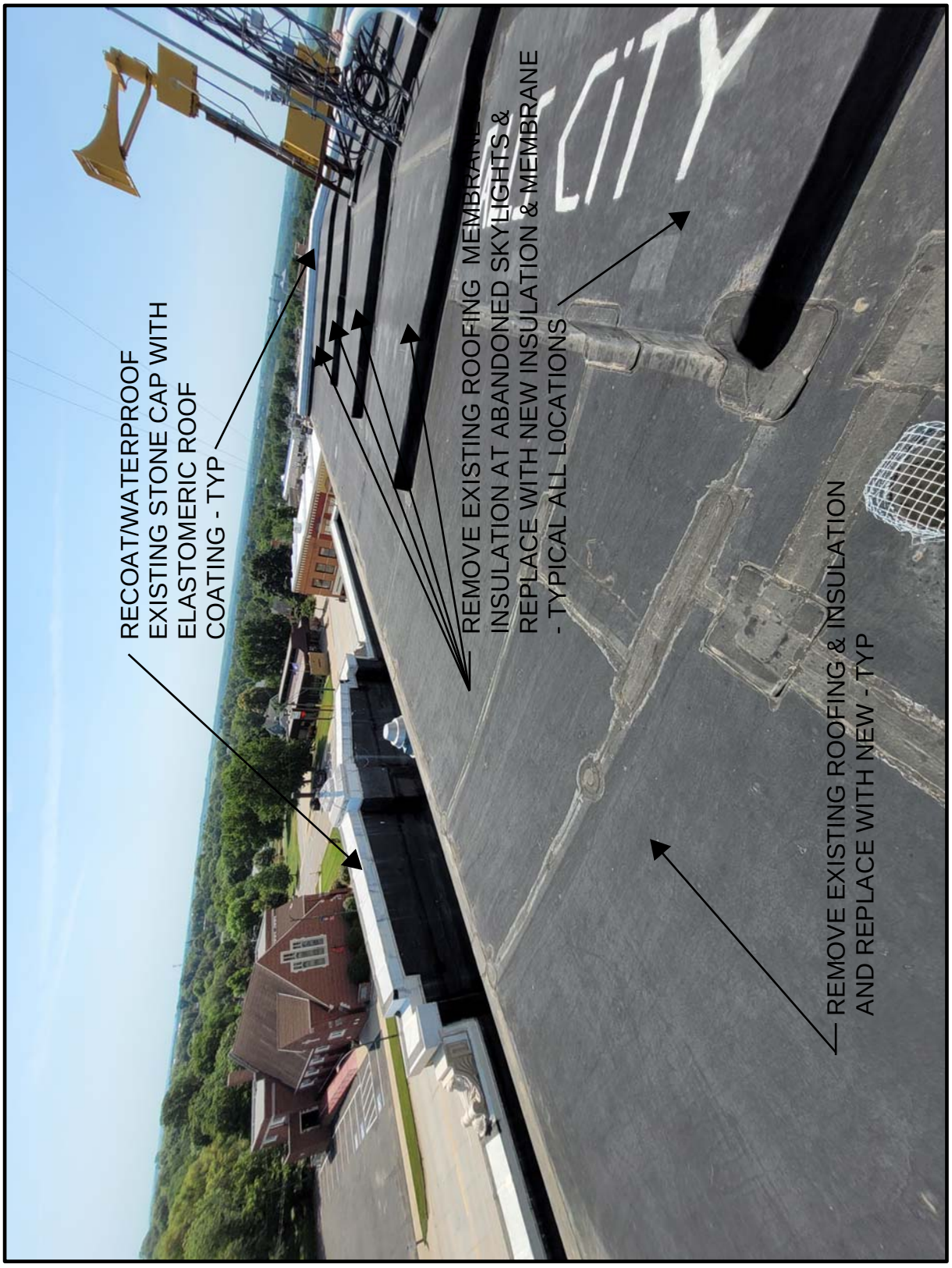

LOOKING SOUTH ON PENTHOUSE ROOF

Date:
12-12 –2022
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222302

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SOUTH EAST CORNER OF CHIMNEY STACK

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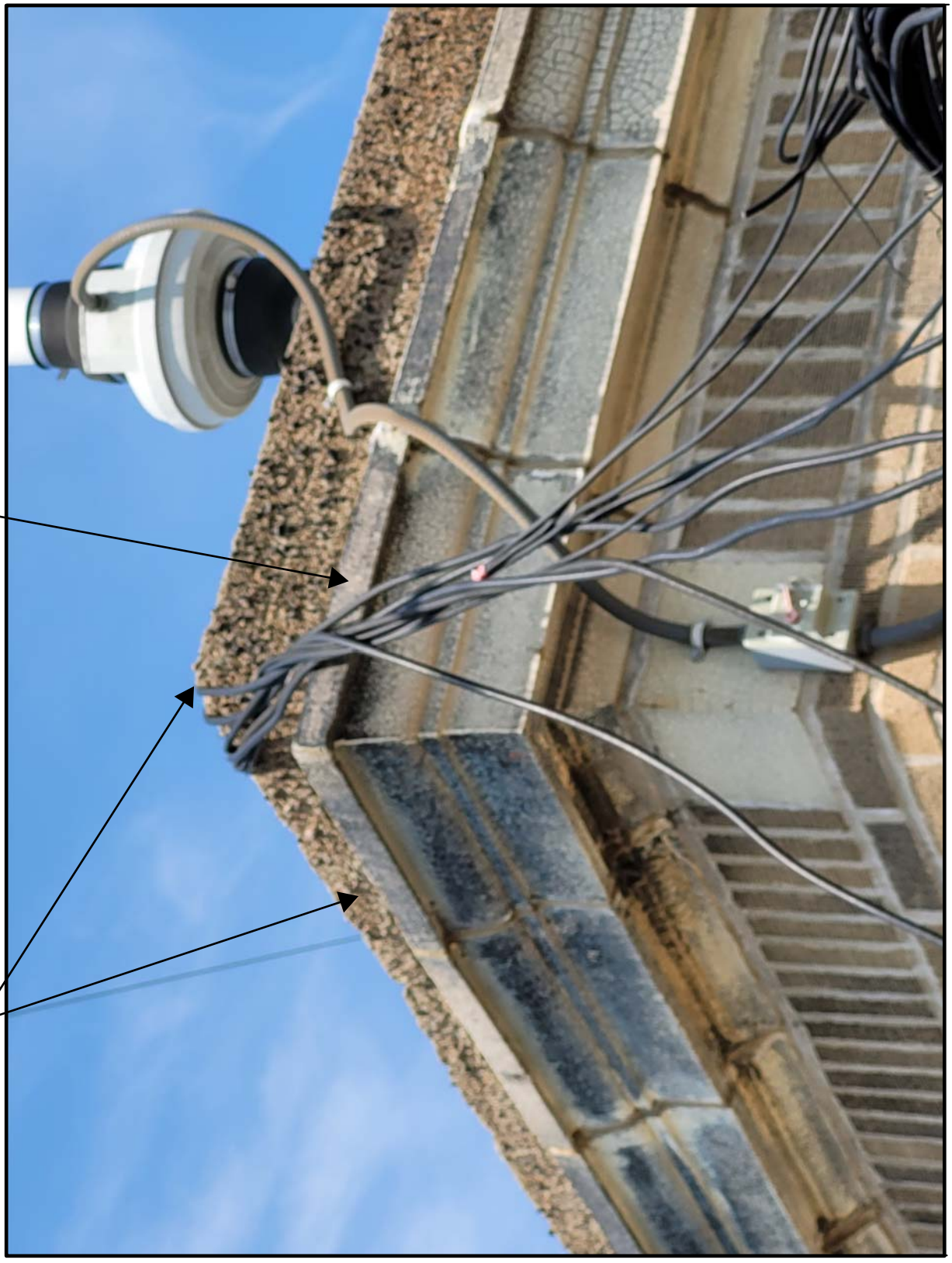

PARAPET AT SOUTHEAST CORNER OF CHIMNEY STACK

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PARAPET AT EAST SIDE OF CHIMNEY STACK

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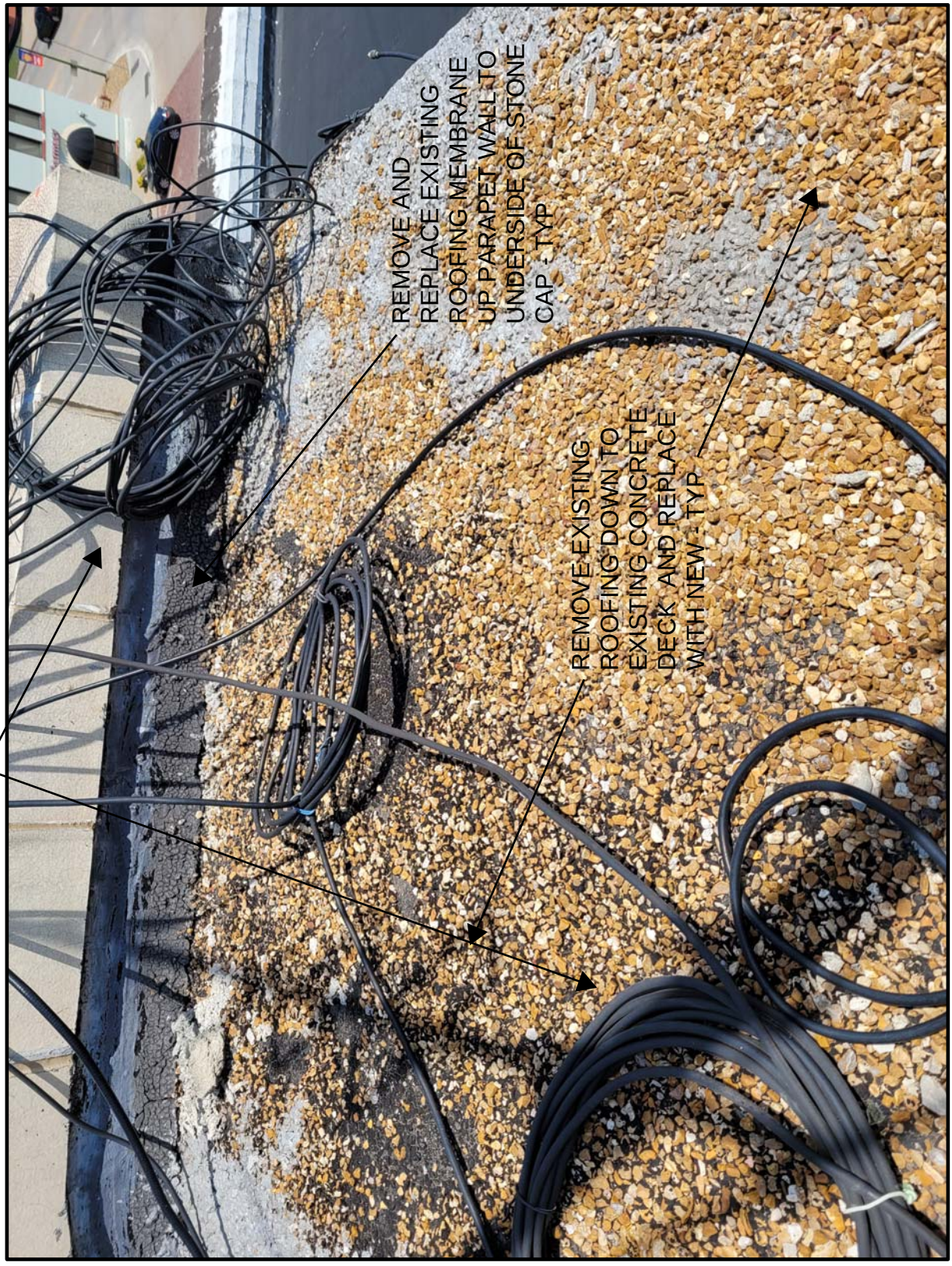

EAST SIDE OF ELEVATOR PENTHOUSE ROOF

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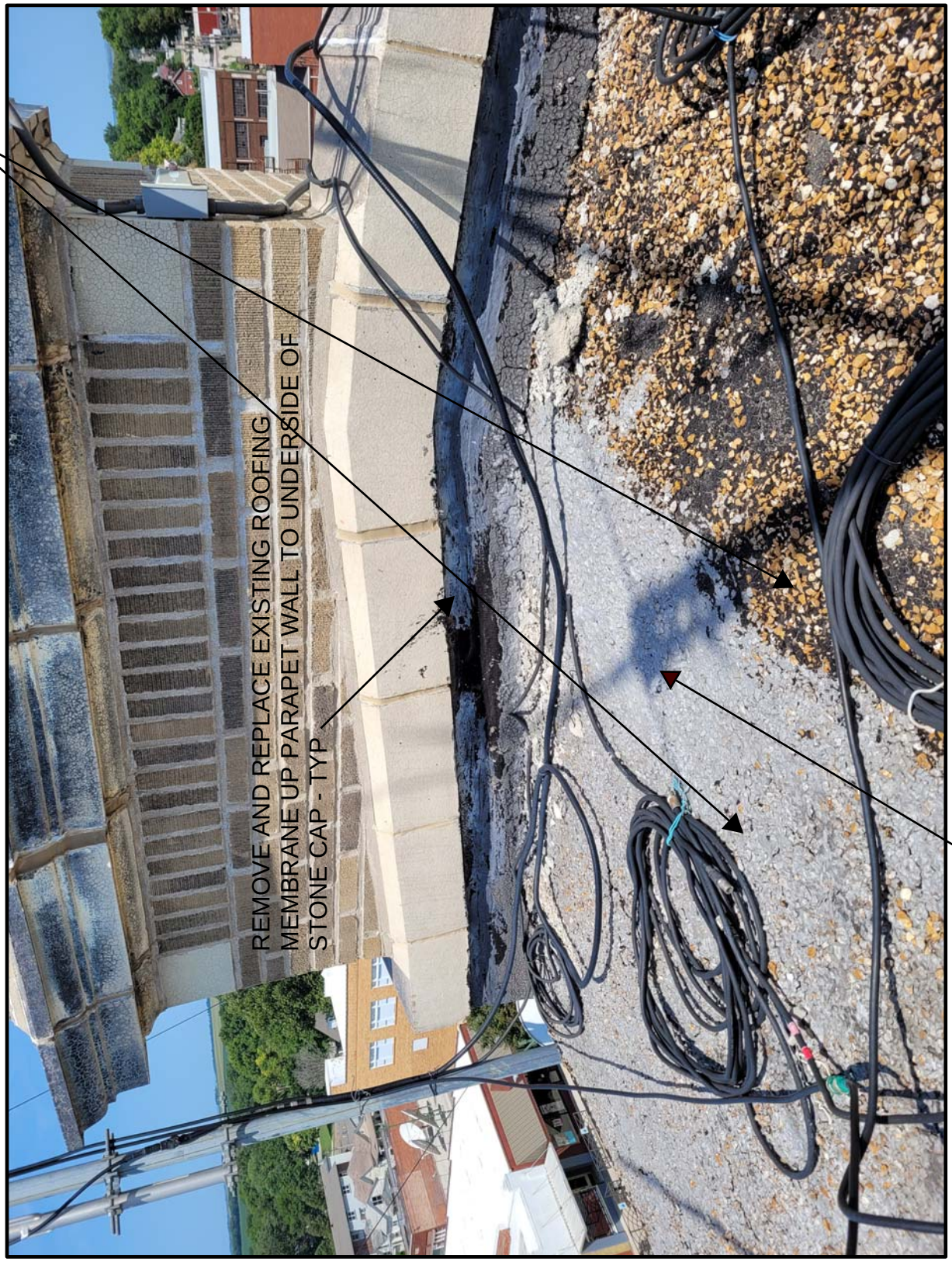

WEST SIDE OF ELEVATOR PENTHOUSE ROOF

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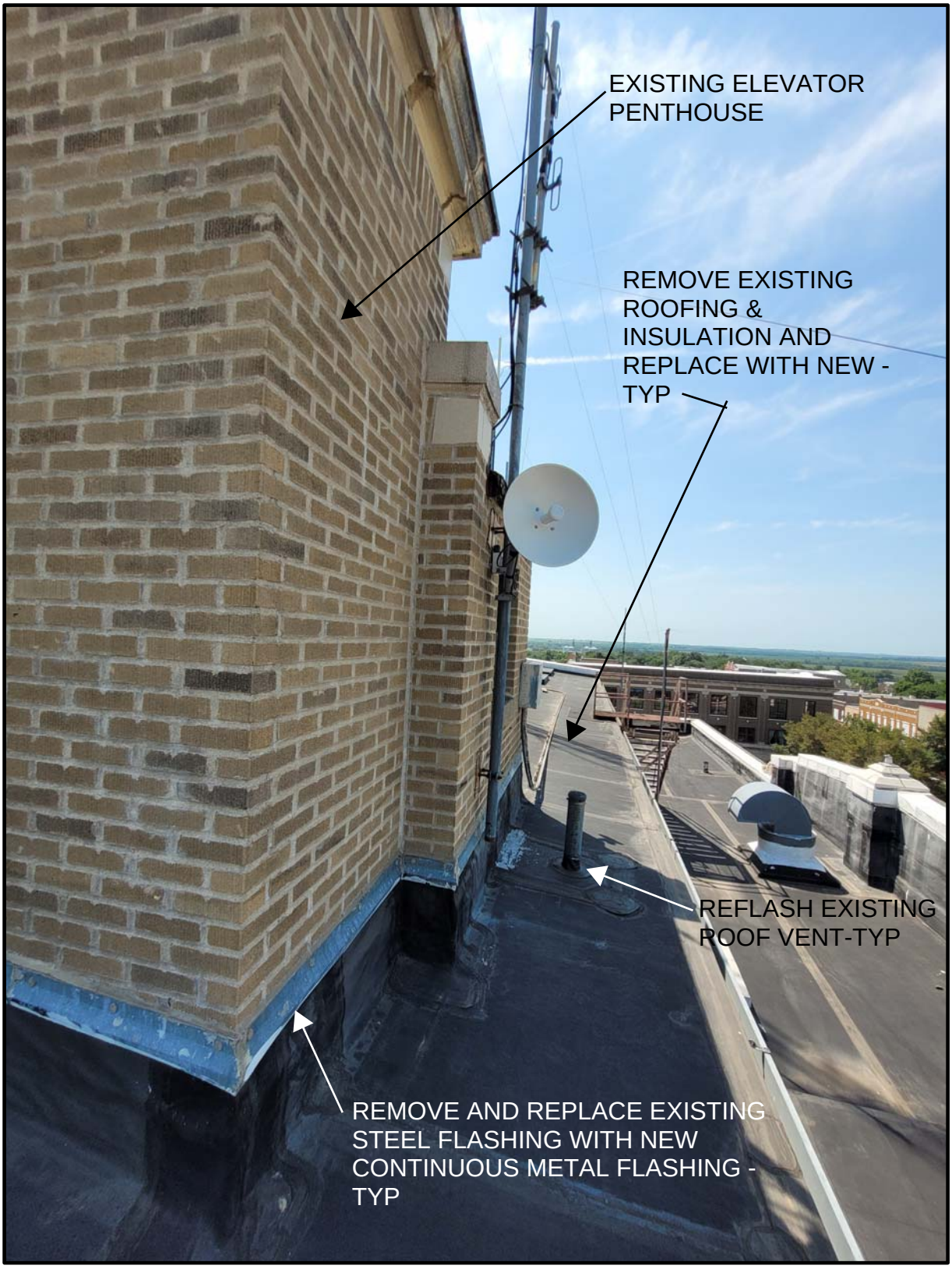

WEST SIDE OF ELEVATOR PENTHOUSE LOOKING SOUTH

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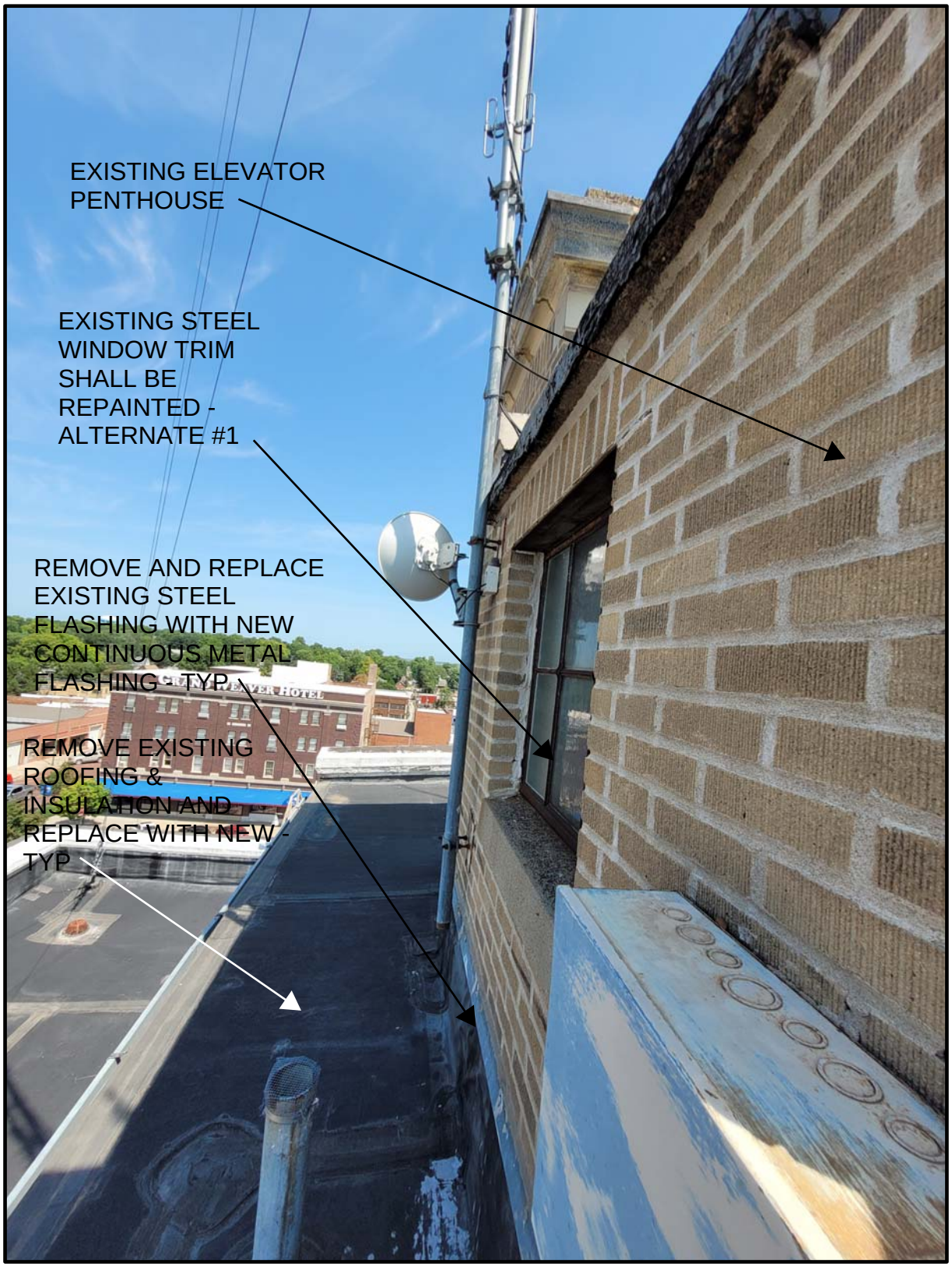

WEST SIDE OF ELEVATOR PENTHOUSE LOOKING NORTH

Date:
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Project No.
222302

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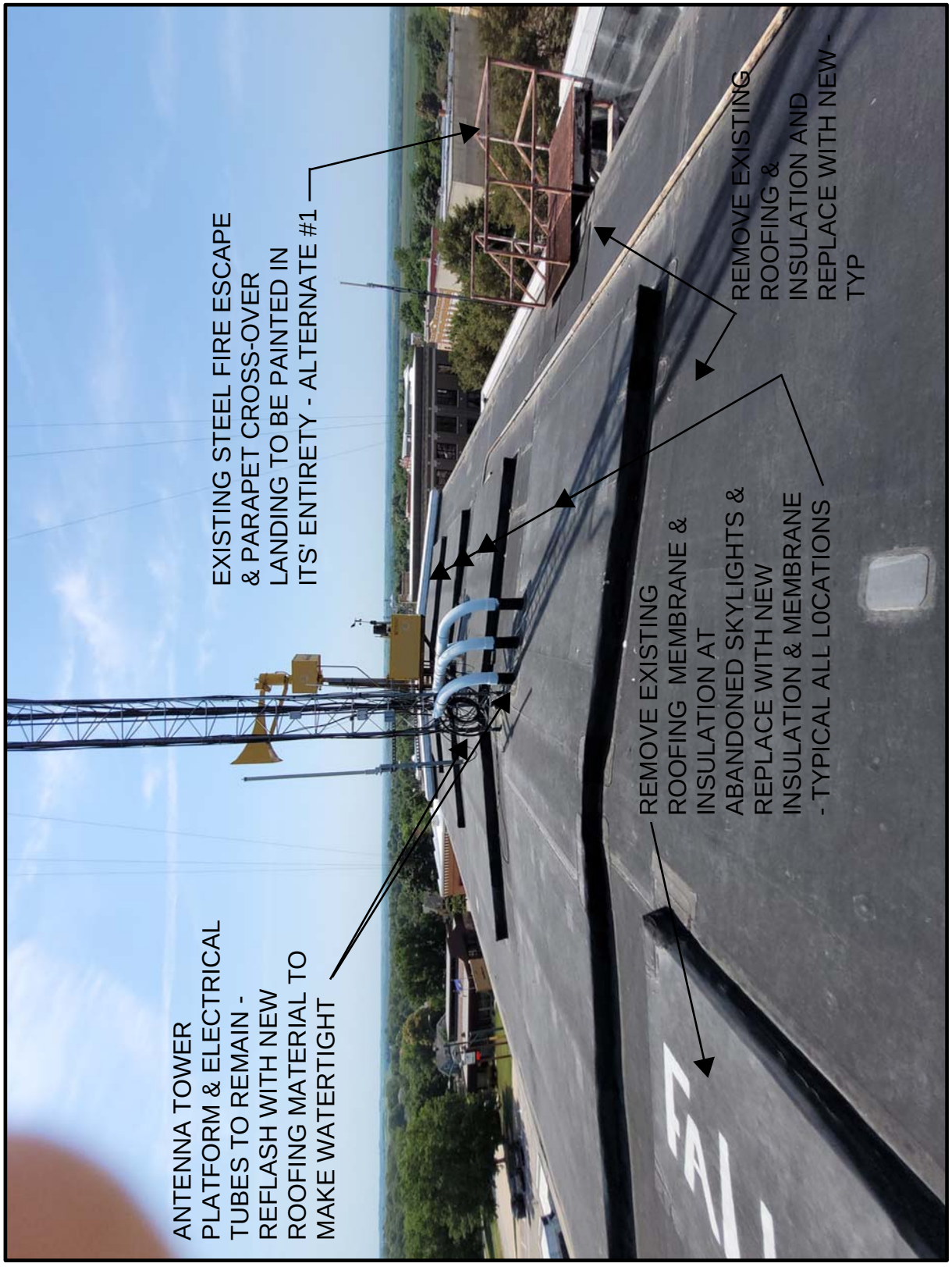

PENTHOUSE ROOF LOOKING SOUTH

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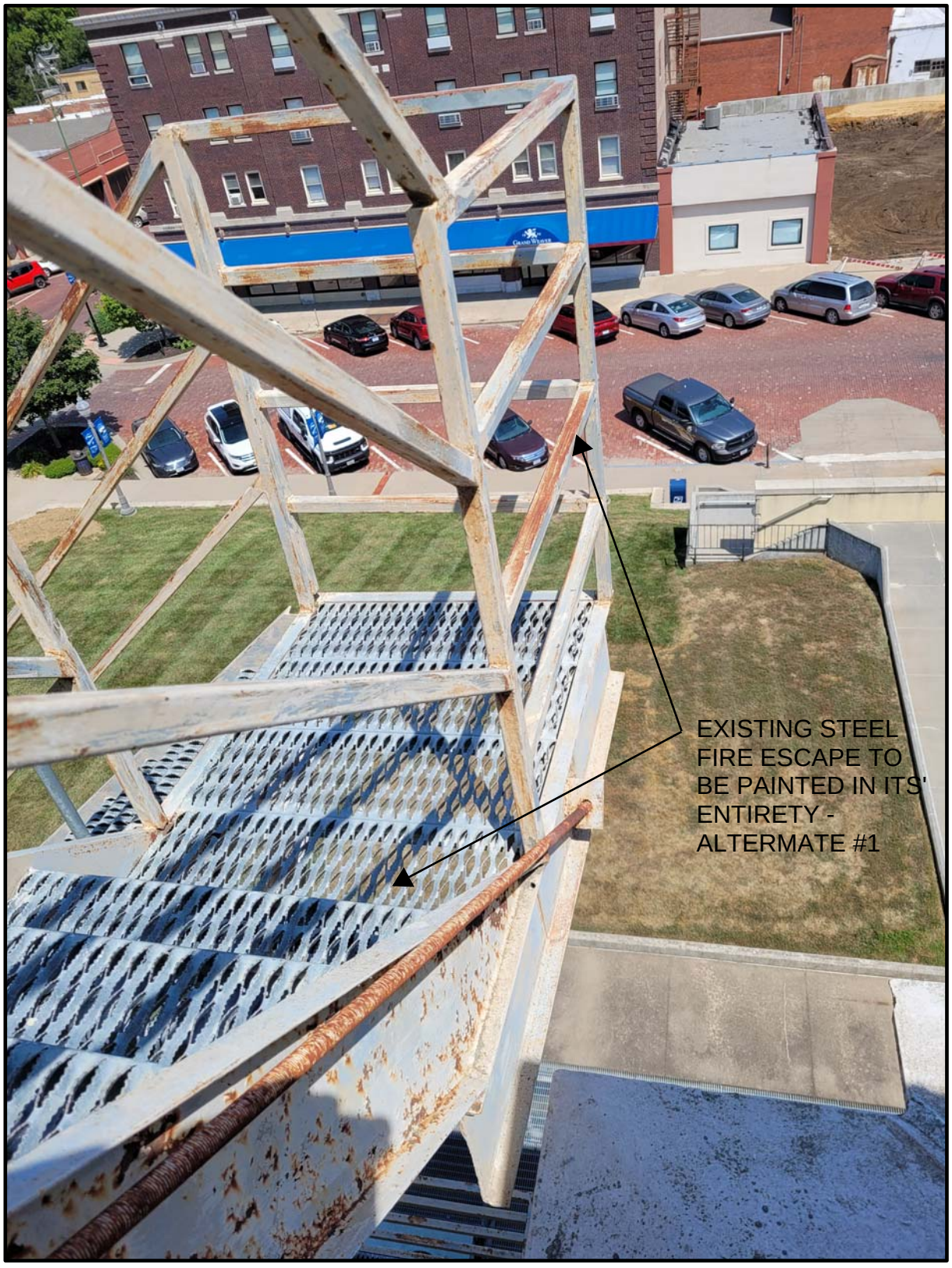

ROOF LEVEL FIRE ESCAPE STAIR

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222302

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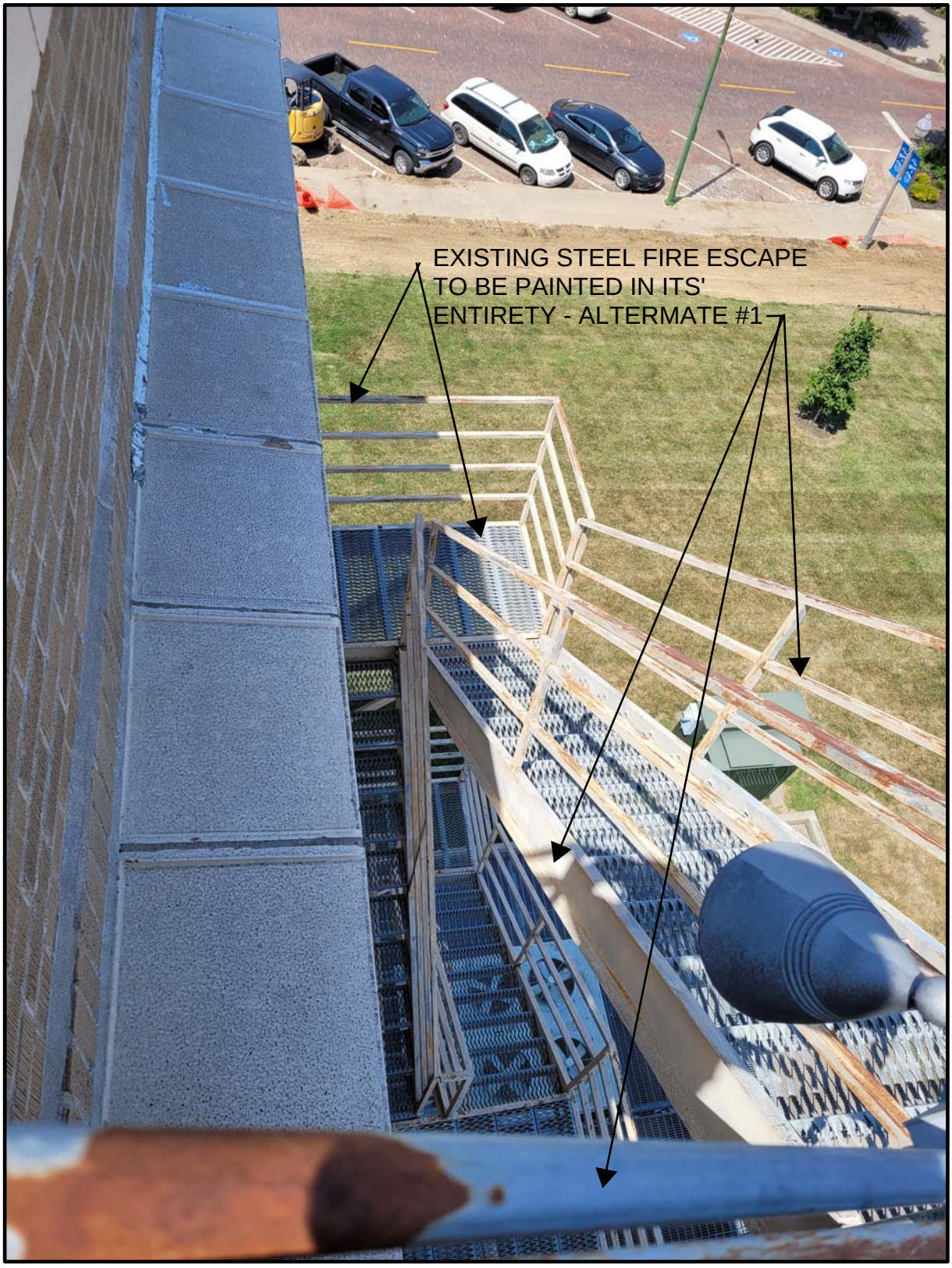

FIRE ESCAPE STAIR DOWN TO LEVEL THREE

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REMOVE EXISTING ROOFING ROCK AS REQUIRED BY MANUFACTURER FOR NEW ELASTOMERIF ROOF COATING. - TYP

TOP OF CHIMNEY CAP

Date:
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SOUTHEAST CORNER OF CHIMNEY CAP

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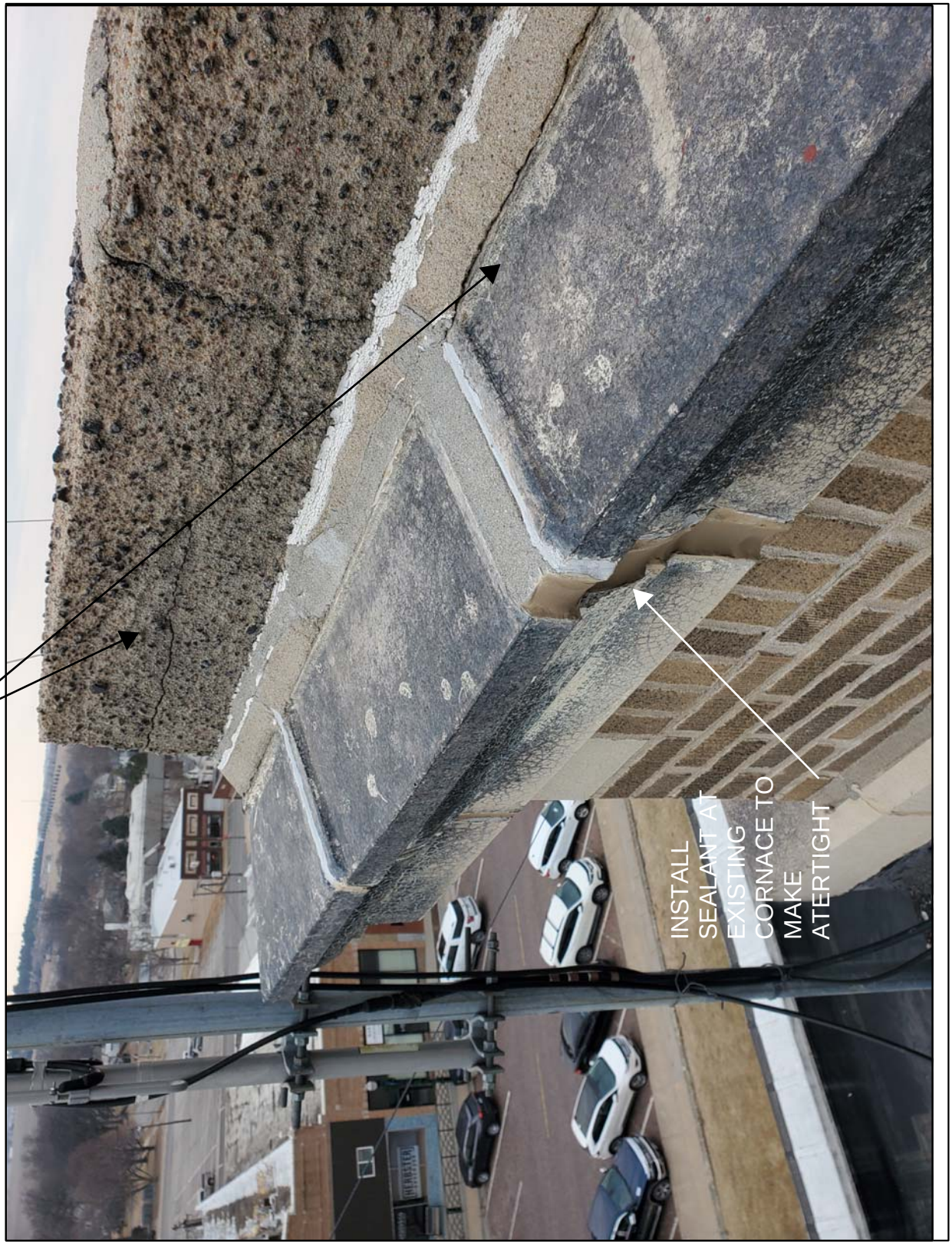

SOUTHWEST CORNER OF CHIMNEY CAP

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