



Roof Recover Bid - Specification

Bid Number 20B-2200

Roof Location

Juvenile Detention Center

5350 Northrock Dr.

Rockford, IL 61103

Prepared for:

County of Winnebago

Shawn Frank, Facilities Engineer

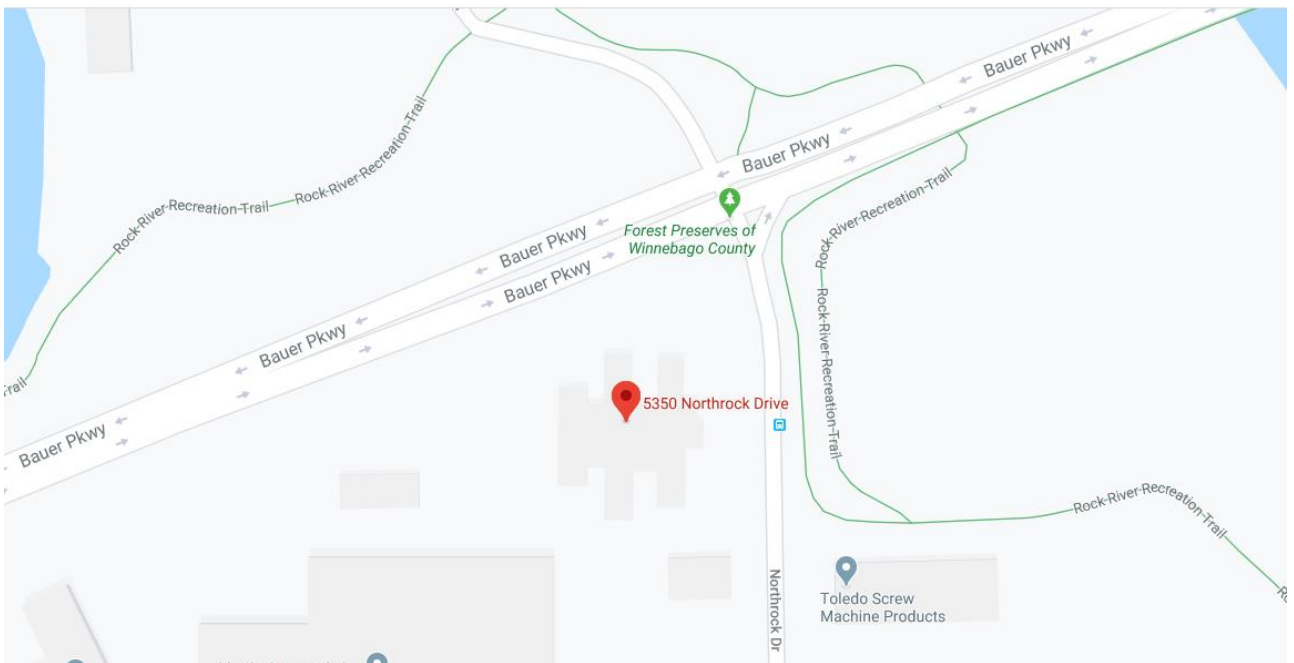
Ann Johns, Director of Purchasing

March 16, 2020

SATELLITE IMAGE



VICINITY MAP



**COUNTY OF WINNEBAGO
JUVENILE DETENTION CENTER
5350 NORTHRICK DRIVE
ROCKFORD, ILLINOIS 61103**

**ROOF RECOVER BID
SPECIFICATIONS**

PROJECT NO. 20B-2200

March 16, 2020

**COUNTY OF WINNEBAGO
ROOF RECOVER BID**

DIVISION 0-BIDDING & CONTRACT REQUIREMENTS
Section 00020 - Invitation to Bid

The Owner invites bids for the tear-off and replacement of roofing:

PROJECT TITLE AND LOCATION

Roof Recover Bid

County of Winnebago
Juvenile Detention Center
5350 Northrock Dr..
Rockford, IL 61103

PROJECT DESCRIPTION

Removal of existing ballast. Install new specified roofing system.

BID DATE

SEALED BIDS WILL BE RECEIVED AT:
COUNTY OF WINNEBAGO –
Administration Building, Purchasing Department at
404 Elm St., Rockford, IL 61101 - Room 202 by
10:30 a.m., April 6, 2020

MANDATORY PRE-BID MEETING:

Wednesday, March 25, 2020 at 10:00 a.m.
5350 Northrock Dr., Rockford, IL 61103
The meeting will begin outside the main entrance

PAYMENT

Progress payments will be discussed in more detail at the pre-construction meeting.

OWNER

COUNTY OF WINNEBAGO
404 Elm St., Rockford, IL 61101

PROJECT COMPLETION

Project MUST be completed within 90 days of award

BID SCOPE

Single Lump Sum

BID OPENING

Public

BID SECURITY

10% Bid Bond or Cashier's Check
100% Payment/Performance Bond

AWARD OF CONTRACT

April 24, 2020, Project must start the week of April 27, 2020

SUBMIT BIDS TO

Winnebago County
Purchasing Department
Room 202
404 Elm St.
Rockford, IL 61101

DIVISION 0 - BIDDING & CONTRACT REQUIREMENTS
Section 00300 - Bid Form

PROJECT IDENTIFICATION:

**COUNTY OF WINNEBAGO
JUVENILE DETENTION CENTER
5350 NORTHRICK DRIVE
ROCKFORD, IL 61103
Roof Recover Bid 20B-2200**

BID PROPOSALS TO:

**Winnebago County Purchasing
Department Room 202
404 Elm St.
Rockford, IL 61101**

- A. The undersigned Bidder agrees, if this bid proposal is accepted, to enter into an agreement with Owner, on the form AIA A101 indicated, to perform and furnish the Work as specified or indicated in the Bidding Documents for the Proposal price and within the proposal times indicated in this bid proposal and in accordance with the other terms and conditions of the Contract Documents
- B. In submitting this bid proposal, Bidder represents, as more fully set forth in the Agreement, that:
 - 1. The Bid proposal will remain subject to acceptance for 120 days after the day of the proposal delivery.
 - 2. The Owner has the right to reject this proposal for any reason.
 - 3. Bidder accepts the provisions of the Instructions and Supplementary Instructions to bidders regarding disposition of Bid security.
 - 4. Bidder has carefully examined and compared copies of the Bidding documents.
 - 5. Bidder has visited and examined the Project sites and roofs and conducted such additional investigations as the Bidder deemed necessary or advisable for the purpose of determining the scope of work and all conditions affecting its performance and to become thoroughly familiar with the general, local, and site conditions and Bidder has compared the Bidding Documents with its observations and knowledge derived from the foregoing examination and investigation and has determined based thereon that there are no ambiguities, conflicts, errors or omissions in the Bidding Documents which have not been resolved adequately by Addenda issued by the County of Winnebago prior to the opening of bids for the Project.
 - 6. Bidder is familiar with federal, state, and local laws, codes and regulations that are applicable to the Project, the performance of the Work and the conduct by Bidder of its business, and the requirements thereof and obligations of a bidder or contractor there under, including but not limited to the Illinois Prevailing Wage Act and bidder agrees to comply therewith.
 - 7. This proposal is genuine and not made in the interest of or on behalf of an undisclosed person, firm, or corporation and is not submitted in conformity with an agreement or rules of a group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited another Bidder to submit a false or sham proposal; and proposal submitter has not sought by collusion to obtain for itself an advantage over another Bidder or over Owner. Bidder further submits as true and correct the Contractor Certifications attachment submitted with its Bid Proposal.
 - 8. Bidders submitter has received the following Addenda receipt of which is hereby acknowledged:

Date

Number of Addenda's Received

Bid Submitter_____

- C. Bid Submitter will complete the Work indicated in and accordance with the Contract Documents for the following prices:

BASE BID NO. 1

Roof recover along the low slope sections
(Single Ply Roof System as specified)

\$ _____

Work Days to Complete _____

Warranty Length _____

Membrane Type _____

UNIT PRICES

If the required quantities of the items listed below are increased or decreased by Change Order, the adjustment unit prices set forth below shall apply to such increased or decreased quantities.

| | |
|---------------------------|------------------|
| Deck Repair - Metal | \$ _____/sq.ft. |
| Deck Replacement – Metal | \$ _____/sq.ft. |
| Wood Blocking Replacement | \$ _____/ln.ft. |
| Metal Coping Replacement | \$ _____/ln.ft. |
| Drain Lowering | \$ _____/drain. |
| Drain Replacement | \$ _____/drain. |
| Time and Material Cost | \$ _____/manhour |

The Proposal is SUBMITTED ON _____, 2020

By _____
(Firm Name)

(Name or Person Authorized to Sign) (Signature)

(Address)

(Zip Code) (Email Address)

TO:

**Winnebago County
Purchasing Department
Room 202
404 Elm St.
Rockford, IL 61101**

I/We _____ Of

_____Agree
to supply all necessary labor, material, plant, transportation, delivery and services for the execution of the Work described above in complete accord with the Contract Documents for the stipulated sums.

Note: This project must be started within one week of award date.

- D. Bid submitter agrees that the Work will be substantially complete and ready for final payment in accordance with the Contract Documents on or before the dates or within the number of calendar days indicated.
- E. I/We will commence Work within ____ calendar days of a contract award and will complete all Work in accordance with the Contract Documents within ____ calendar days of commencement.
- F. The following submittals are attached to and made a condition of this bid:
 - 1. Bid Bond
 - 2. Contractor Compliance and Certifications Attachment

| | | | |
|--|---|------------------|-------------------|
| INVITATION FOR BID | 20B-2200 | BID ISSUE DATE | March 16, 2020 |
| BID DESCRIPTION | Roof Recover – Juvenile Detention Center | | |
| BID OPENING DATE | April 6, 2020 | BID OPENING TIME | 10:30 AM |
| SUBMIT ONE (1) ORIGINAL, PLUS ONE (1) COPY | | BOND REQUIRED | Yes – see details |

All bids are subject to staff analysis. Winnebago County reserves the right to accept or reject any and all bids received and waive any and all technicalities. Bids must be delivered to:

WINNEBAGO COUNTY PURCHASING DEPARTMENT 404 ELM STREET, ROOM 202, ROCKFORD, IL 61101

BID RESPONSES MUST BE RECEIVED AND TIME STAMPED NO LATER THAN THE PUBLIC BID OPENING DATE AND TIME SPECIFIED ABOVE. BIDS WILL BE OPENED AND READ ALOUD AT THAT TIME IN THE PROCUREMENT SERVICES DIVISION. LATE BIDS WILL NOT BE CONSIDERED.

A **MANDATORY Pre-Bid Conference** with the facilities prior to submitting a bid is scheduled for **March 25, 2020 at 10:00 AM**, at Juvenile Detention Center, 5350 Northrock Drive, Rockford IL 61103. No further on-site inspection will be held at any other time.

Any communication regarding this invitation between the date of issue and date of award is required to go through the Director of Purchasing. FACSIMILE AND/OR E-MAIL TRANSMITTED BIDS WILL NOT BE ACCEPTED.

| EVENT | LOCATION | DATE | TIME (CST) |
|--|--|---|------------|
| LEGAL ADVERTISEMENT | ROCKFORD REGISTER STAR WEBSITE: HTTP://WINCOIL.US/ | March 17 | - - - |
| MANDATORY PRE-BID CONFERENCE | 5350 Northrock Dr Rockford, IL 61103 | March 25 | 10:00 AM |
| DEADLINE FOR INQUIRIES, EXCEPTIONS AND QUESTIONS | MUST BE SUBMITTED IN WRITING TO: AJOHNS@WINCOIL.US | March 26 | 3:00 PM |
| RESPONSE TO QUESTIONS OR INQUIRIES AND ISSUE OF ANY ADDENDUM | VIA E-MAIL | No less than 7 Calendar days before opening | |
| BID DUE AND PUBLIC OPENING | PURCHASING DEPARTMENT ROOM 202 | April 6 | 10:30 AM |

ALL BIDS MUST BE ENCLOSED IN SEALED ENVELOPES MARKED:

“Roof Recover – Juvenile Detention Center”

REQUIREMENTS FOR BIDDING AND INSTRUCTIONS TO BIDDERS

SUBMISSION OF BIDS

The Bidder, by its officers, agents or representatives (hereafter referred to as the Bidder), shall be responsible for delivery of bids to the Purchasing Department before the date and hour set for the opening of bids. *Late bids will not be considered and will be returned unopened.*

Bids mailed "EXPRESS MAIL" must have bid number and due date on the outside of the EXPRESS MAIL envelope. You must allow sufficient time for processing through the County's internal mailroom system.

PREPARATION OF BID

The Bidder must submit a bid on the forms furnished by the Winnebago County Purchasing Department. All blank spaces on the bid form must be filled in. Use "N/A" or "None" where applicable.

Where unit prices are to be bid, and/or where bids are to be made on more than one item, the Bidder shall extend the unit price(s) bid in the places provided on the pricing pages for the approximate quantities, shall compute the total amount of the bid and shall indicate same on the bid pricing page. The Bidder must bid in accordance with the unit(s) of measure called for unless deviation procedure is followed. All extensions and total sums are subject to verification by the County and the correct extensions and sums will be used in the comparison of bids. If a discrepancy exists between the unit prices and totals, the unit prices shall prevail. If a discrepancy exists between the total base bid and the true sum of the individual bid items, the true sum shall prevail.

Authorized signature must be the individual owner of a proprietorship, a general partner of a partnership, or signed in the name of a corporation by an officer whose title shall be stated. Bids shall be sealed in an envelope and marked as required in the instructions. The bid is contained in these documents and must remain attached hereto when submitted.

ENTIRE AGREEMENT

These Standard Terms and Conditions of the Bid shall apply to any contract or order awarded as a result of this Bid except where special requirements are stated elsewhere in the Bid; in such cases the special requirements shall apply. Further, the written contract and/or order with referenced parts and attachments shall constitute the entire agreement and no other terms and conditions in any document, acceptance, or acknowledgement shall be effective or binding unless expressly agreed to in writing by the contracting authority.

DEVIATIONS, EXCEPTIONS OR ALTERNATES

Deviations, exceptions or alternates from terms, conditions, or specifications shall be described fully, on Bidder's letterhead, signed, and attached to the Invitation for Bid. In the absence of such statement, the bid shall be accepted as in strict compliance with all terms, conditions, and specifications and the Bidder shall be held liable. Bidders are cautioned to avoid making deviations and exceptions to the specifications, which may result in rejection of their bid. If deviations, exceptions or alternates are submitted, it is the Winnebago County Director of Purchasing's sole and final decision whether specifications have been met and will be considered for award.

ELECTRONIC TRANSMITTALS

Facsimile and/or e-mail transmitted bids will not be accepted by Winnebago County. In addition, Winnebago County will not transmit facsimile specifications to the Bidder.

ADDENDUM AND SUPPLEMENT TO THE BID

If it becomes necessary or advisable to revise any part of this Bid or if additional data is necessary to enable the exact interpretation of provisions of this Bid, revisions will be provided in the form of an Addendum. If revisions are made after any mandatory Pre-Bid conference, the revisions will be provided only to those Contractors who will have attended the Pre-Bid conference.

In the event that any addenda to this Bid are issued, a public posting a minimum of 7 days will be adhered to, and could result in a revised date for the opening of this bid.

Addendum information is available at the County's website <http://WinColL.us/> We strongly suggest that you check for any addenda a minimum forty-eight hours (48) in advance of the bid deadline.

APPLICABLE CODES AND ORDINANCES

Bidder hereby certifies that all services and/or materials used or performed conform to all articles and sections of all current applicable National Building Codes, IDOT, Federal, State and other relevant codes. Workmanship and materials shall conform to all local applicable codes and ordinances.

CANCELLATION

The County of Winnebago reserves the right to cancel any contract in whole or in part without penalty due to failure of the contractor to comply with terms, conditions and specifications of this contract.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

The Bidder certifies, by submission of this bid or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this bid that it will include this clause without modification in all lower tier transactions, solicitations, bids, contracts, and subcontracts. Where the bidder/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation.

Additionally, for all new contractors and vendors to be paid, the Purchasing Department will review the Federal and State Excluded Parties List System prior to requesting the vendor be created in our accounting system.

CHANGES

Winnebago County reserves the right to make any desired change in the specifications after the same shall have been put under contract; but the change so made, with the price to be added or deducted from the contract price, therefore, shall be agreed upon in advance between County and the successful Bidder.

The Purchasing Department shall issue to the successful Bidder a written change order to the original contract; such change orders shall be binding upon both parties thereto and shall in no way invalidate or make void the terms of the original contract not modified by such change.

COMPLIANCE WITH LAWS

All services, work and materials that in any manner affect the production, sale, or payment for the product or service contained herein must comply with all Federal, State, County and Municipal laws, statutes, regulations, codes, ordinances and executive orders in effect now or later and whether or not they appear in this document, including those specifically referenced herein. The successful bidder must be authorized to do business in the State of Illinois, and must be able to produce a Certificate of Good Standing with the State of Illinois upon request.

Bidder/Contractor must obtain all licenses, certificates and other authorizations required in connection with the performance of its obligations hereunder, and Bidder/Contractor must require any and all subcontractors to do so. Failure to do so is an event of disqualification and/or default and may result in the denial of this bid and/or termination of this Agreement.

In the event Federal or State funds are being used to fund this contract, additional certifications, attached as addenda, will be required. Lack of knowledge on the part of the vendor will in no way be cause for release of this obligation. If the County becomes aware of violation of any laws on the part of the vendor, it reserves the right to reject any bid, cancel any contract and pursue any other legal remedies deemed necessary.

COST OF BID

Expenses incurred in the preparation of bids in response to this bid is the bidder's sole responsibility.

DELIVERIES

All equipment, materials and/or supplies shipped to Winnebago County must be shipped F.O.B. designated location. Prices offered must be all-inclusive with no additional charges or costs allowed.

DISPUTES

In case of disputes as to whether or not an item or service, quoted or delivered meets specifications, the decision of the Director of Purchasing, or authorized representative shall be final and binding to all parties.

FREEDOM OF INFORMATION

Any responses and supporting documents submitted in response to a bid will be subject to disclosure under the Illinois Freedom of Information Act. The County will assume that all information provided in a bid is open to inspection or copying by the public unless clearly marked with the appropriate exception that applies under the Freedom of Information Act. Additionally, if providing documents that you believe fall under an exception to the Freedom of Information Act, please submit both an un-redacted copy along with a redacted copy which has all portions redacted that you deem to fall under a Freedom of Information Act exception.

INDEMNITY

The Bidder shall, at all times, fully indemnify, hold harmless, and defend Winnebago County and their officers, agents, and employees from and against any and all claims and demands, actions, causes of action, and cost and fees of any character whatsoever made by anyone whomsoever on account of or in any way growing out of the performance of this contract by the Bidder and its employees, or because of any act or omission, neglect or misconduct of the Bidder, its employees and agents or its subcontractors including, but not limited to, any claims that may be made by the employees themselves for injuries to their person or property or otherwise, and any claims that may be made by the employees themselves or by the Illinois Department of Labor for the Bidder's violation of the Illinois Prevailing Wage Act (820 ILCS 130/1 et seq.). Such indemnity shall not be limited by reason of

the enumeration of any insurance coverage or bond herein provided. Nothing contained herein shall be construed as prohibiting Winnebago County and their officers, agents, or its employees, from defending through the selection and use of their own agents, attorneys and experts, any claims, actions or suits brought against them. The Bidder shall likewise be liable for the cost, fees and expenses incurred in Winnebago County's or the Bidder's defense of any such claims, actions, or suits. The Bidder shall be responsible for any damages incurred as a result of its errors, omissions or negligent acts and for any losses or costs to repair or remedy construction as a result of its errors, omissions or negligent acts.

LIENS, CLAIMS, AND ENCUMBRANCES

Contractor warrants and represents that all the goods and materials ordered herein are free and clear of all liens, claims, or encumbrances of any kind.

NON-COLLUSION

The Bidder, by its officers, agents or representatives present at the time of filing this bid, say that neither they nor any of them, have in any way directly or indirectly, entered into any arrangement or agreement with any other bidders, or with any public officer of the County of Winnebago, Illinois, whereby, the Bidder has not paid or is to pay to such Bidder or public officer any sum of money, anything of value or has not directly or indirectly entered into any arrangement or agreement with any other bidder or bidders. Whereby, no inducement of any form or character other than that which appears upon the face of the bid will be suggested, offered, paid or delivered to any person whomsoever to influence the acceptance of the said bid or understanding of any kind whatsoever, with any person whomsoever to pay, deliver to, or share with any other person in any way or manner, any of the proceeds on the Contract sought by this bid.

NON-DISCRIMINATION

In connection with the performance of work under this contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability, sexual orientation or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment of compensation, and selection for training, including apprenticeship. Except with respect to sexual orientation, the Contractor further agrees to take affirmative action to ensure Equal Employment Opportunities. The Contractor agrees to post in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the Non-Discrimination Clause.

PROMPT PAYMENT ACT

The bid should provide that all payments are subject to the Local Governmental Prompt Payment Act.

BID PROTESTS

Any actual or prospective Bidder or Proposer who is aggrieved in connection with this solicitation or award of a contract may protest to the Director of Purchasing. Any protest must be submitted in writing within five (5) business days from the issuance of the solicitation, addendum, and notice of award or other decision by the Purchasing Department. In the event of a timely protest, the Director of Purchasing after consulting with the State's Attorney Offer shall determine whether it is in the best interests of the County to proceed with the solicitation or award of the contract.

When a protest is sustained and the protesting Proposer should have been awarded the contract under the solicitation but is not, then the protesting Proposer shall be entitled only to the reasonable costs incurred in connection with the solicitation, including RFP preparation costs other than attorney's fees.

CONTRACT CLAIMS

All claims by a Proposer against the County relating to a contract, except bid protests, shall be submitted in writing to the Director of Purchasing. The Proposer may request a conference with the Director of Purchasing on the claim. Claims include, without limitation, disputes arising under a contract, and those based upon breach of contract, mistake, misrepresentation, or other cause for contract modification or rescission.

AUTHORITY TO SETTLE BID PROTESTS AND CONTRACT CLAIMS

The Director of Purchasing, after consultation with the State's Attorney, is authorized to settle any procedural protest regarding the solicitation or award of a County contract prior to an appeal to the County Board, or any committee thereof. The Director of Purchasing, after consulting with the State's Attorney, is authorized to make recommendations on the settlement of any monetary claim to the appropriate Committee of the County Board for their consideration. If the protest or claim is not resolved by a mutual agreement, the Director of Purchasing shall promptly issue a decision in writing, and it shall be immediately mailed or otherwise furnished to the Proposer. The decision shall state the reasons for the decision reached, and shall inform the Proposer of its appeal rights. The Director of Purchasing's decision shall be final and conclusive unless, within five (5) business days from the date of receipt of the decision, the County Board Chairman receives a written appeal from the Proposer. If the Director of Purchasing does not issue a written decision regarding any protest or claim within ten (10) business days after written request for a final decision, or within such longer period as may be agreed upon between the parties, then the aggrieved party may proceed as if an adverse decision had been received.

APPEAL PROCESS

Any actual or prospective Proposer or Proposer may appeal a decision of the Director of Purchasing regarding bid protests or contract claims to the County Board Chairman. The Director of Purchasing's decision shall be final and conclusive unless, within five business days from the date of receipt of the decision the County Board Chairman receives a written appeal regarding the Director of Purchasing's decision. The County Board Chairman shall, in writing, render a decision within ten business days. The decision of the County Board Chairman is final.

ELECTED COUNTY OFFICIALS

Decisions and determinations are subject to the review and approval of Elected County Officials as provided by State law.

RESERVATION OF RIGHTS

The County of Winnebago reserves the right to reject any or all bids failing to meet the County's specifications or requirements and to waive technicalities. If in the County of Winnebago's opinion, the lowest bid is not the most responsible bid, considering value received for monies expended, the right is reserved to make awards as determined solely by the judgment of the County of Winnebago. In determining the lowest responsible Bidder, the County shall take into consideration the qualities of the articles supplied, their conformity with the specifications, and their suitability to the requirements

of the County and the delivery terms. Intangible factors, such as the Bidder's reputation and past performance, will also be weighed.

Winnebago County reserves the right to award to more than one vendor, as it deems in the best interest to do so.

The Bidder's failure to meet the mandatory requirements of the Bid will result in the disqualification of the bid from further consideration.

The County further reserves the right to reject all bids and obtain goods or services through intergovernmental or cooperative agreements, or to issue a new and revised Bid.

Submission of a bid confers no rights on the Contractor to a selection or to a subsequent contract. All decisions on compliance, evaluation, terms and conditions shall be made solely at the County's discretion and shall be made in the best interest of the County.

SUBSTANCE ABUSE PREVENTION

The Substance Abuse Prevention on Public Works Act, Public Act 95-0635, prohibits the use of drugs and alcohol, as defined in the Act, by employees of the contractor and by employees of all approved subcontractors while performing work on a public works project. The contractor/subcontractor hereby certifies that it has a superseding collective bargaining agreement or makes the public filing of its written substance abuse prevention program for the prevention of substance abuse among its employees who are not covered by a collective bargaining agreement dealing with the subject as mandated by the Act.

Bidders and their subcontractors (if applicable) certifies that the entity has signed collective bargaining agreements that are in effect for all of its employees, and that deal with the subject matter of Public Act 95-0635, or certifies that the contracting entity has in place for all of its employees not covered by a collective bargaining agreement a written substance abuse prevention program that deals with subject of the Act, and will attach the substance abuse prevention program that meets or exceeds the requirements of Public Act 95-0635.

TAXES NOT APPLICABLE

The County of Winnebago as a Governmental Unit pays neither Federal Excise Tax nor Illinois Retailers Occupational Tax, and therefore, those taxes should be excluded from bid. Our Tax Exempt Number is: E9992-3963-07.

TERMINATION, CANCELLATION AND DAMAGES

The County may terminate based on the Contractor's breach or default. Unless the breach or default creates an emergency, as determined in the County's sole discretion, the Contractor shall be given notice and a five (5) day opportunity to cure before the termination becomes effective.

If the County terminates this Contract because of the Contractor's breach or default, the County shall have the right to purchase items or services elsewhere and to charge the Contractor with any additional cost incurred, including but not limited to the cost of cover, incidental and consequential damages and the cost of re-bidding. The County may offset these additional costs against any sums otherwise due to the Contractor under this bid or any unrelated contract.

If the Winnebago County fails to appropriate funds to enable continued payment of multi-year contracts the County may cancel, without termination charges provided Contractor received at least thirty (30) days prior written notice of termination.

Winnebago County may terminate any contract or agreement resulting from this Bid or RFP at any time for any reason by giving at least thirty (30) days' notice in writing to awarded Contractor. If the contract is terminated by the County as provided herein, the contractor will be paid a fair payment as negotiated with the County for the work completed as of the date of termination.

USE OF TRADE NAMES

In cases where a specified item is identified by a manufacturer's name, trade name, or other references, it is understood that the bidder proposes to furnish the item identified. If the bidder proposes to furnish an "equal," the proposed "equal" item must be so indicated in the written bid. The County shall be the sole determiner of the equality of the substitute offered. Provide details on material bid and roof guarantee information.

WITHDRAWAL OF BIDS

Any bidder may withdraw their bid at any time prior to the time specified in the advertisement as the closing time for the receipt of bids by signing a request therefore. However, no bidder shall withdraw or cancel his bid for a period of sixty (60) days after said advertised closing time for the receipt of bids; the successful bidder shall not withdraw or cancel their bid after having been notified by the Director of Purchasing that said bid has been accepted by the County Board.

QUESTIONS & INQUIRES

Any questions and/or inquires may be directed, no later than the date provided for on page 2 to Ann Johns, Director of Purchasing, 404 Elm Street, Room 202, Rockford, Illinois 61101, by Telephone: (815) 319-4380 or Email: purchasing@wincoil.us

PERMITS, FEES, AND NOTICES

The Awarded Contractor shall secure and pay for all Building Permits and Governmental Fees, licenses, and inspections necessary for the proper execution and completion of the work, which are legally required, file all notices, comply with all laws, rules, regulations and lawful orders bearing on the performance of the work.

END OF REQUIREMENTS FOR BIDDING AND INSTRUCTIONS TO BIDDERS

BUSINESS REFERENCES

The Bidder must list references for the last three (3) completed projects, listing company name, address, contact person, telephone number and date of completion. If Bidder is a new business, provide references that will enable the County to determine if bidder is responsible.

| | |
|----------------------|--|
| NAME | |
| CONTACT PERSON | |
| ADDRESS | |
| CITY, STATE, ZIPCODE | |
| TELEPHONE | |
| EMAIL | |

| | |
|----------------------|--|
| NAME | |
| CONTACT PERSON | |
| ADDRESS | |
| CITY, STATE, ZIPCODE | |
| TELEPHONE | |
| EMAIL | |

| | |
|----------------------|--|
| NAME | |
| CONTACT PERSON | |
| ADDRESS | |
| CITY, STATE, ZIPCODE | |
| TELEPHONE | |
| EMAIL | |

| | |
|--------------------------------------|--|
| NUMBER OF YEARS IN BUSINESS | |
| CURRENT NUMBER OF PERSONNEL ON STAFF | |

END OF BUSINESS REFERENCES

CONTRACTOR QUALIFICATION STATEMENT

Project and/or Trade: _____

FROM: (Contractor): _____

Telephone: _____

Email: _____

CONTRACTOR HEREBY REQUESTS QUALIFICATION FOR BIDDING IN ACCORDANCE WITH PROVISIONS OF CHAPTER 13A OF THE WINNEBAGO COUNTY CODE:

The Undersigned Certify:

1. I/We have been conducting business in the state of Illinois under its applicable laws.
2. I/We comply within the provisions of Section 2000€ of Chapter 21, Title 42 of the United States Code as an Equal Opportunity Employer.
3. I/We currently maintain minimum liability insurance policies issued by an AAA Best Rated company.
4. I/We comply within the provisions of the Illinois Prevailing Wage Act.
5. I/We participate in a registered apprenticeship and training program approved by the United States Department of Labor

Submits:

1. Evidence of Federal Employer Tax Identification Number or Social Security Number (for individuals)
2. Evidence of Contractors State License Number. (If applicable)
3. Certificate of Insurance indicating the following coverage’s: general liability, worker’s compensation, completed operations, automobile, hazardous occupation, product liability, and professional liability
4. Evidence of participation in an apprenticeship-training program approved and registered by the United States Department of Labor
5. A client reference listing of at least three (3) projects in which the same trade was performed in the last twelve (12) months.

SIGNATURES

Authorized signature in affirmation of the above statements and submittals:

(Name of Corporation)

(Authorized Signature) (Title)

(State of Incorporation) (Date)

(Print Name of Signer)

NON-COLLUSION AFFIDAVIT

The Bidder, by its officers and _____ agent or representatives present at the time of filing this Bid, being duly sworn, on their oaths say that neither they nor any of them, have in any way directly or indirectly, entered into any arrangement or agreement with any other Bidder, or with any public officer or the County of Winnebago, Illinois, whereby such affiant or affiants or either of them, has paid or is to pay to such Bidder or public officer any sum of money, or has given or is to give other bidder or public officer anything of value whatever, or such affiant or affiants or either of them has not, directly or indirectly, entered into any arrangement or agreement with any other Bidder or Bidders, which tends to or does lessen or destroy free competition in the letting of the Contract sought for by the attached Bids; that no inducement of any form or character other than that which appears upon the face of the Bid will be suggested, offered, paid, or delivered to any person whomsoever to influence the acceptance of the said Bid or understanding of any kind whatsoever, with any person whomsoever to pay, deliver to, or share with any other person in any way or manner, any of the proceeds or the Contract sought by this Bid.

SUBSCRIBED and sworn to
before me this _____
day of _____, 20_____.

My commission expires:

Notary Public

BID# _____

The four declarations required for compliance with the laws on Equal Employment Opportunity are attached hereto. Our Illinois Department of Human Rights Number is _____ . (We do not have an Illinois Department of Human Rights number. In lieu thereof we will make application for it within 30 days from the date of bid opening. _____ Place check-mark on line if applicable).

Person, Firm or Corporation

Authorized Signature

Title

EEO/pg 6

DOCUMENT 00202 – INSTRUCTIONS TO BIDDERS

1.1 ADVERTISEMENT FOR BIDS/LEGAL NOTICE

- A. An Advertisement for Bids/Legal Notice, published as a separate document, is part of these instructions.

1.2 LAWS AND REGULATIONS

- A. Applicable provisions of the laws of the State of Illinois shall be observed in the receiving of bids and awarding of contracts for the Work. Applicable provisions of the laws of the State of Illinois shall be observed in letting and executing the Work. This contract calls for the construction of a “public work,” within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 *et seq.* (“the Act”). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the “prevailing rate of wages” (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor’s website at: <http://www.state.il.us/agency/idol/rates/rates.HTM>. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, *including but not limited to*, all wage, notice and record keeping duties.
- B. Bids shall not include any Sales or Use Tax on materials, equipment and supplies incorporated in the Work or totally consumed in the Performance of the Work.

1.3 DEFINITIONS

- A. Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement for Bids, Notice to Bidders, these Instructions to Bidders, bid forms, and other sample bidding and contract forms and certification form provided by the Owner. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor (including all referenced exhibits), Conditions of the Contract (General, Supplementary and Special if any), Drawings, Specifications, Contractor Certifications and all Addenda issued prior to execution of the Contract.
- B. Addenda are written or graphic instruments issued by the Owner or Consultant prior to the execution of the Contract that modify or interpret the Bidding Documents.
- C. The Base Bid is the sum stated in the Bid for which the bidder offers to perform the Work described or indicated in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids accepted by the Owner.
- D. An Alternate Bid is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

- E. A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or services, or a portion of the Work as described in the Bidding Documents. A Unit Price includes all costs associated with the performance of the portion of the Work for which the Unit Price is provided, including but not limited to labor, materials, equipment, transportation, overhead and profit.
- F. A Bidder is a person or entity who submits a Bid to the Owner and who meets the requirements set forth in the Bidding Documents.
- G. “Indicated” and “shown” mean as described, detailed, discussed, scheduled, referenced, or called for in, or reasonably inferable from, the Contract Documents, in order to produce a first class Work product.

1.4 BIDDING DOCUMENTS

- A. Obtaining Bidding Documents: Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement for Bids/Legal Notice. Bidders shall use complete sets of Bidding Documents in preparing Bids. The Owner and Consultant assumes no responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- B. Return of Bidding Documents: All Bidding Documents are the property of and must be returned to the Owner. The full document deposit will be returned to those plan holders who return complete sets of Bidding Documents in good, reusable condition prior to 10 calendar days after the date bids are opened. Deposit will be forfeited if incomplete or unusable sets are returned or if documents are not received by the Owner within the period noted.
- C. Examination of Bidding Documents and Site: Before submitting a bid, the Bidder shall carefully examine the drawings, read the specifications and all other Bidding documents, visit and examine roof and the site of the Work and perform such other investigations as the Bidder deems necessary or desirable in order to determine the scope of the Work and all conditions affecting its performance. The Bidder shall fully inform himself prior to bidding as to all existing conditions and limitations under which the Work is to be performed and he/she shall include in the bid a sum to cover the cost of all items necessary to perform the Work as set forth in the Contract Documents. No allowance will be made to the Bidder because of lack of such examination, investigation or knowledge. The submission of a bid shall be construed as conclusive evidence that the Bidder has made such examination and investigation.
- D. Interpretation or Correction of Bidding Documents: If the Bidder is in doubt as to the interpretation of any part of the Bidding Documents, or finds discrepancies in or omissions from any part of the Contract Documents, he/she must submit a written or email Request for Interpretation thereof not later than 3:00 p.m. on March 26, 2020 prior to opening of bids. Address all communications to the Owner.

1.5 ADDENDA

- A. Any interpretation, correction to, or addition to the Contract Documents will be made by written Addendum and will be delivered by email to each prime Bidder of record and the plan services indicated in the Advertisement for Bids. The written Addenda constitute the only interpretations

of the Contract Documents; the Owner and Consultant accepts no responsibility for any other claimed interpretations.

- B. It is the responsibility of each Bidder to verify that he/she has received all Addenda prior to submitting a bid. It is also the responsibility of each Bidder to verify that all sub-Bidders and material suppliers whose prices are incorporated in the Bidder's bid are familiar with the Bidding Documents in their entirety, including all Addenda issued up to the time of bid opening.

1.6 SUBSTITUTIONS DURING BIDDING

- A. Requests for Substitution are accepted only under limited conditions. Bidders are referred to "Product Requirements" for direction on the conditions under which Requests for Substitution will be considered.
- B. By submitting a bid, the Bidder represents that his/her bid is based upon the materials and equipment indicated in the Bidding Documents, which include the Addenda. The Bidders are encouraged to request approval of qualifying substitute materials and equipment when the specifications sections list materials and equipment by product/manufacturer name. Bidders' Requests for Substitution will be received and considered by the Owner and Consultant when all of the following conditions are satisfied, as determined by the Owner and Consultant; otherwise requests will be returned without action:
 - 1. Extensive revisions to Contract Documents are not required.
 - 2. Proposed changes are in keeping with the general intent of Contract Documents, including the level of quality of the Work represented by the requirements therein.
 - 3. The request is made by submitting an email by the Q&A deadline prior to the bid date, fully documented, and properly submitted.
- C. Owner's Action
 - 1. The Owner and Consultant may request additional information or documentation necessary for evaluation of the request. The Owner or Consultant will notify all Bidders of acceptance of the proposed substitute by means of an Addendum to the Bidding Documents.
- D. Owner's approval of a substitute during bidding does not relieve the Contractor of the responsibility to submit required shop drawings and to comply with all other requirements of the Contract Documents.

1.7 BIDDING PROCEDURES

- A. Form Of Bid
 - 1. Bids must be submitted on the Bid Form provided, properly executed and with all items filled out in ink or typed. Do not change or add words to the Bid Form. Unauthorized conditions, qualifications, limitations, or provisions on or attached to the Bid Form may be cause for rejection of the bid. Bidder's information on the Bid Form that is altered by erasure or by interlineation prior to submittal must be initialed and explained by notation on the Bid Form above the signature of the Bidder. All signatures must be witnessed.
- B. Submission Of Bids

1. Each bid shall be delivered to the location indicated on the Bid Form on or before the day and hour set for receipt and opening of bids. Each bid shall be submitted in an opaque, sealed envelope marked in the lower left-hand corner as follows:

| | |
|----------------------------------|--|
| Bid for (name of prime contract) | Roof Recover – Juvenile Detention Center |
| Name of Project | Bid 20B-2200 Juvenile Detention Center |
| Bidder's Name | _____ |
| Bidder's Address | _____ |
| Contractor's License No. | _____ |
| Date and Time of Bid Opening | 10:30 A.M., April 6, 2020 |

2. If not delivered in person, this envelope shall be enclosed in a second envelope for posting to the location indicated for receipt of bids. This envelope shall be addressed as follows:

| | |
|--|--|
| Bid for (name of prime contract) | Roof Recover – Juvenile Detention Center |
| Owner name | County of Winnebago |
| Street address OR Post Office Box 0000 | 404 Elm St., Room 202 |
| City Name, State, Zip Code | Rockford, IL 61101 |
| Contractor's License No. | _____ |
| Date and Time of Bid Opening | 10:30 A.M., April 6, 2020 |

3. It is the sole responsibility of the Bidder to see that his/her bid is received in proper time. No faxed or e-mail bid or modification of a bid will be considered. No bids submitted after the time fixed for receiving bids will be considered; late bids will be returned to the Bidder unopened.

C. Acknowledgement Of Addenda

1. Bidder must acknowledge all Addenda received in the spaces provided on the Bid Form. By submitting a bid, Bidder indicates that all considerations issued by addendum are incorporated in the bid.

D. Bid Supplements

1. Attached to the Bid Form will be certain supplements that are included in this Project Manual following the Bid Form. Bidders shall complete all forms, entering “Not Applicable” where information does not apply to their portion of the Work. Absence of any of the Bid Supplements included in the Project Manual will be reason for possible rejection of bid.

E. Contractor Certifications

1. Attached to the Bid Forms or contained in the Project Manual will be one or more certifications regarding the Bidder’s compliance with applicable laws. **Failure of a bidder to complete/submit a required certification shall be the basis for immediate rejection of that Bidder’s bid.** The certification of the successful Bidder shall become a part of the Contract with the Owner.

F. Status Of Bidders

1. Proprietors submitting bids shall indicate their status as proprietors.

2. Bidders submitting bids for partnerships shall indicate their status as partners and shall submit, upon request of the Owner within 24 hours following receipt of bids, a certified copy of the power of attorney authorizing the executor of the bid to bind the partnership.
3. Bidders submitting bids for corporations shall indicate their status as corporations and shall submit, upon request of the Owner within 24 hours following receipt of bids, a certified copy of the board of directors' authorization for the Bidder to bind the corporation and shall affix the corporate seal on the bid.
4. Bidders shall provide, upon request of the Owner, within 24 hours following receipt of bids, the following:
 - a. Names and addresses of proprietors, of all members of a partnership, or of the corporation's officers.
 - b. Name of county or state where the partnership is registered or where the corporation is incorporated. Corporations must be licensed to do business in the project state at the time of executing the contract.

G. Bid Security

1. Each bid shall be accompanied by good and sufficient bid security in the form of a Bid Bond, a cashier's check, or a money order, (no cash), in the name of the Owner, for an amount not less than 10 percent of the amount of the bid, which security shall be conditioned to secure the Owner as liquidated damages, not as penalty, from loss or damage by reason of the withdrawal of the bid, or by failure of a Bidder to enter into a contract for performance of the Work should his/her bid be accepted by the Owner.
2. If a surety bond is required, it shall be written on AIA Document A301, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.
3. The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either the Contract has been executed and bonds, if required, have been furnished, or the specified time has elapsed so that Bids may be withdrawn, or all Bids have been rejected.

1.8 MODIFICATION AND WITHDRAWAL OF BIDS

- A. A bid may be withdrawn on personal requests received from Bidder prior to submission time. A withdrawn bid may be resubmitted up to submission time. **Negligence or error on the part of the Bidder in preparing his/her bid confers no right for withdrawal of the bid after it has been opened.**
- B. Emailed and faxed bids will not be considered.
- C. No Bidder may withdraw a bid within 60 days following the opening of bids.

1.9 AWARD OR REJECTION OF BIDS

- A. The Contract, if awarded, will be awarded to the lowest responsive and responsible Bidder, subject to the Owner's right to reject any or all bids and to waive any informality in the bids or in the bidding. Failure to complete all information required on the Bid Form and Bid Form Supplements, may result in rejection of bid. The Owner shall have the right to accept alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents,

and to determine the low bidder on the basis of the sum of the Base Bid, Unit Prices and Alternates accepted.

- B. Bids may be rejected if the Bid Form shows any unexplained erasures, omissions, alterations of form, additions not called for, added restrictions or qualifying conditions or other irregularities of any kind.
- C. The Owner and Consultant may make such investigations as he/she deems necessary to determine the responsibility of the Bidder and the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Owner and Consultant all such information for this purpose as the Owner and Consultant may request. The Owner reserves the right to reject any bid if the evidence submitted by or investigation of such Bidder fails to satisfy the Owner and Consultant that such Bidder is properly qualified and able to carry out the obligations of the Contract and to complete the Work contemplated therein within the Contract Time.

1.10 ACCEPTANCE

- A. The acceptance of a bid will be a Notice of Award, signed by a duly authorized representative of the Owner; or the owner, no other act by the Owner or his/her agents shall constitute the acceptance of a bid. The acceptance of a bid by the Owner shall bind the successful Bidder to execute the Contract. The Bidder to whom the Contract is awarded by the Owner, shall, sign and deliver to the Owner for execution by the Owner all required copies of the Agreement, along with all required insurance and bonding documents. The rights and obligations provided for in the Contract shall become effective upon the parties only with formal execution of the Agreement by the Owner.

1.11 BONDS AND CERTIFICATES

- A. Unless otherwise stipulated in the Bidding Documents, the Bidder shall deliver to the Owner a Performance Bond, a Payment Bond, and a Labor and Material Bond, each in the amount of 100 percent of the Contract Sum, with a corporate surety authorized to transact business in the Project State, within 3 days following execution of the Contract, or prior to commencement of the Work, whichever occurs first. Attorneys-in-fact who sign bonds must file with each bond a certified and effective dated copy of their power of attorney.
- B. Satisfactory certificates of insurance in the amounts specified in the Contract Documents shall be furnished prior to commencement of Work.
- C. All bonds and policies or certificates of insurance must meet with the approval of the Owner before the Contractor will be allowed to commence the Work. Failure or refusal to furnish or to furnish on a timely basis bonds or insurance policies or certificates in a form satisfactory to the Owner shall subject the Bidder(s) to forfeiture of bid bond. Delay in commencement of the Work as the result of delay in the furnishings of the required bonds and/or policies or certificates of insurance shall not extend the Contract time.
- D. The form of the Agreement that the successful Bidder, as Contractor, will be required to execute is the form of Agreement referenced in the Project Manual.

END OF SECTION 00202

DOCUMENT 00211 - REQUEST FOR SUBSTITUTION FORM

Project: _____ Project No.: _____
To: _____ Specification Section #: _____
_____ Contractor: _____
Attn.: _____ Requested by: _____
Phone: _____ Phone: _____
Fax: _____ Fax: _____
Email: _____ Email: _____

Reason for not providing specified item: _____

Savings to Owner for accepting substitution: (applies to substitutions following award only, if allowed)

Specified Product/Fabrication Method

(List name/description; model no.; manufacturer): _____

| Required Information for <i>Specified</i> Product: | Attached: |
|--|--------------------------|
| Point by Point Comparative Product Data | <input type="checkbox"/> |
| Tests | <input type="checkbox"/> |
| Reports | <input type="checkbox"/> |
| Fabrication Drawings | <input type="checkbox"/> |
| Samples (Where Applicable) | <input type="checkbox"/> |

Proposed Product/Fabrication Method

(List trade name/description; model no.; manufacturer) : _____

| Required Information for <i>Proposed</i> Product: | Attached: |
|---|-------------------------------------|
| Point by Point Comparative Product Data | <input type="checkbox"/> (Required) |
| Tests | <input type="checkbox"/> |
| Reports signed and sealed by IL Licensed Engineer | <input type="checkbox"/> |
| Fabrication Drawings | <input type="checkbox"/> |
| Samples (Where Applicable) | <input type="checkbox"/> |

List of Related Changes/Modifications: _____

Differences between proposed substitution and specified product: _____

Proposed product/fabrication method affects other parts of the Work No Yes: Explain _____

This page is blank.

Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product as utilized for this project, except as noted herein.
- Qualifications of manufacturer, installer, and other specified parties meet the specified qualifications.
- Same special warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source for replacement parts, as applicable, is available as that specified.
- Proposed substitution does not affect dimensions and functional clearances, except as noted herein.

For the Bidder:

Submitted by: _____
Signed: _____
Firm: _____
Telephone: _____
FEIN: _____
Email: _____

For the Manufacturer:

Submitted by: _____
Signed: _____
Firm: _____
Telephone: _____
FEIN: _____
Email: _____

END OF DOCUMENT 00211

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Mechanically-fastened thermoplastic PVC roofing system on metal deck, including:
2. Roof insulation.
3. Walkway material.

B. Section includes the installation of acoustical roof deck rib insulation strips furnished under Division 05 Section "Steel Decking."

C. Related Sections:

1. Division 00 Document "Existing Condition Information" for related Project information not part of the Contract Documents.
2. Division 06 rough carpentry section for wood nailers and blocking.
3. Division 07 Section "Roof Specialties" for manufactured copings, roof edge flashings and counterflashings, and roof edge drainage systems.

D. Alternates: Refer to Division 01 Section "Alternates" for description of Work in this Section affected by alternates.

E. Allowances: Refer to Division 01 Section "Allowances" for description of Work in this Section affected by allowances.

F. Unit Prices: Refer to Division 01 Section "Unit Prices" for description of Work in this Section affected by unit prices.

1.2 DEFINITIONS

A. Roofing Terminology: See ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

1.3 ACTION SUBMITTALS

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

B. Sustainable Design Submittals:

1. Product Test Reports for Solar Reflectance: For roof materials, indicating that roof materials comply with Solar Reflectance Index requirement.

- C. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Base flashings and membrane terminations.
 - a. Indicate details meet requirements of NRCA and FMG required by this Section.
 - 2. Roof plan showing types and orientation of roof deck and orientation of membrane roofing and fastening spacings and patterns for mechanically fastened membrane roofing if applicable.
 - 3. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- D. Samples for Verification: For the following products:
 - 1. Sheet roofing, of color specified, including T-shaped side and end lap seam.
 - 2. Walkway pads or rolls.
 - 3. Metal termination bars.

1.4 INFORMATIONAL SUBMITTALS

- A. Contractor's Product Certificate: Submit certificate, indicating products intended for Work of this Section, including product names and numbers and manufacturers' names, with statement indicating that products to be provided meet the requirements of the Contract Documents.
- B. Qualification Data: For Installer, Manufacturer, and Roofing Inspector.
 - 1. Include letter from Manufacturer written for this Project indicating approval of Installer.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of membrane roofing system.
- D. Warranties: Unexecuted sample copies of special warranties.
- E. Inspection Reports: Daily reports of Roofing Inspector. Include weather conditions, description of work performed, tests performed, defective work observed, and corrective actions taken to correct defective work.

1.5 CLOSEOUT SUBMITTALS

- A. Executed copies of warranties.
- B. Maintenance Data: To include in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and certified by manufacturer, including a full-time on-site supervisor with a minimum of five years' experience installing

products comparable to those specified, able to communicate verbally with Contractor, Architect, and employees, and qualified by the manufacturer to install manufacturer's product and furnish warranty of type specified.

- B. **Manufacturer Qualifications:** Approved manufacturer listed in this Section, UL listed for roofing systems comparable to that specified for this Project, with minimum five years' experience in manufacture of thermoplastic roof membrane products in successful use in similar applications.
1. **Approval of Comparable Products:** Submit the following in accordance with project substitution requirements, within time allowed for substitution review:
 - a. Product data, including certified independent test data indicating compliance with requirements.
 - b. Samples of each component.
 - c. Sample submittal from similar project.
 - d. Project references: Minimum of five installations of specified products not less than five years old, with Owner and Architect contact information.
 - e. Sample warranty.
 2. Substitutions following award of contract are not allowed except as stipulated in Division 01 General Requirements.
 3. Approved manufacturers must meet separate requirements of Submittals Article.
- C. **Roofing Inspector Qualifications:** A technical representative of manufacturer not engaged in the sale of products and experienced in the installation and maintenance of the specified roofing system, qualified to perform roofing observation and inspection specified in Field Quality Control Article, to determine Installer's compliance with the requirements of this Project, and approved by the manufacturer to issue warranty certification. The Roofing Inspector shall be one of the following:
1. An authorized full-time technical employee of the manufacturer.
- D. **Manufacturer's Installation Instructions:** Obtain and maintain on-site access to manufacturer's written recommendations and instructions for installation of products.
- E. **Preinstallation Roofing Conference:** Conduct conference at Project site.
1. Meet with Owner,, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative,, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
 2. Review drawings and specifications.

3. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
4. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
5. Examine substrate conditions and finishes for compliance with requirements, including flatness and fastening.
6. Review structural loading limitations of roof deck during and after roofing.
7. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
8. Review governing regulations and requirements for insurance and certificates if applicable.
9. Review temporary protection requirements for roofing system during and after installation.
10. Review roof observation and repair procedures after roofing installation.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.8 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

- B. Daily Protection: Coordinate installation of roofing so insulation and other components of roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.
 - 1. Provide tie-offs at end of each day's work to cover exposed roofing and insulation with a course of roofing sheet securely in place with joints and edges sealed.
 - 2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing.
 - 3. Remove temporary plugs from roof drains at end of each day.
 - 4. Remove and discard temporary seals before beginning work on adjoining roofing.

1.9 WARRANTY

- A. Manufacturer: Manufacturer's standard warranty form, covering work of this Section, in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within warranty period.
 - 1. Warranty Period: 20 years from date of completion.
- B. Installer Warranty: Installer's warranty signed by Installer, as follows.
 - 1. Form of Warranty: Form acceptable to Roofing Manufacturer and Owner.
 - 2. Scope of Warranty: Work of this Section and extended system components indicated.
 - 3. Warranty Period: 2 years from date of completion.
- C. Manufacturer Inspection Services: By manufacturer's technical representative, to report maintenance responsibilities to Owner necessary for preservation of Owner's warranty rights. The cost of manufacturer's inspections is included in the Contract Sum.
 - 1. Inspections to occur in following years: 2, 5, 10, 15 following completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, **but are not limited to, the following:**
 - 1. Tremco.
 - 2. Fibertite.
 - 3. Sanafil.

- B. Source Limitations: Obtain components for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed membrane roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
 - 1. Accelerated Weathering: Roofing system shall withstand 10,000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 - 2. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D 3746/C 3746M, ASTM D 4272/D 4272M, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- B. Roofing System Design: Provide membrane roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency in accordance with ANSI/FM 4474, UL 580, or UL 1897, and to resist uplift pressures calculated in accordance with ASCE-7 and applicable code.
- 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 pressures:
- D. Flashings and Fastening: Comply with requirements of Division 07 Sections "Sheet Metal Flashing and Trim" and "Roof Specialties." Provide base flashings, perimeter flashings, detail flashings and component materials and installation techniques that comply with requirements and recommendations of the following:
 - 1. NRCA Roofing Manual (Sixth Edition) for construction details and recommendations.
 - 2. SMACNA Architectural Sheet Metal Manual (Seventh Edition) for construction details.
- E. Exterior Fire-Test Exposure: ASTM E 108, Class A; for application and roof slopes indicated, as determined by testing identical membrane roofing materials by a qualified testing agency. Materials shall be identified with appropriate markings of applicable testing agency.
- F. Energy Performance: Roofing system shall have an initial solar reflectance index of not less than 0.70 and an emissivity of not less than 0.75 when tested according to CRRC-1.

2.3 MATERIALS, GENERAL

- A. 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.

2.4 THERMOPLASTIC MEMBRANE MATERIALS

- A. PVC Roof Membrane:

1. Thermoplastic PVC/TPA sheet, internally fabric reinforced, ASTM D4434 Type IV; Energy Star qualified, CRRC listed, and California Title 24 Energy Code compliant.
 - a. Tensile Strength at 0 deg. F (-18 deg. C), minimum, ASTM D751: 300 lbf/in (1330 N).
 - b. Tear Strength at 77 deg. F (25 deg. C), minimum, ASTM D751: 100 lbf (440 N).
 - c. Elongation at 0 deg. F (-18 deg. C), minimum at fabric break, ASTM D751: 25 percent machine direction, 25 percent cross-machine direction.
 - d. Minimum Thickness, nominal, ASTM D751: 0.060 in (1.5 mm).
 - e. Color: White.
 - f. Solar Reflectance Index (SRI), ASTM E1980: 108 (White, initial) 84 (White, 3-year aged).
 - g. Recycled Content, minimum: 25 percent preconsumer.
- B. Membrane Flashing: Manufacturer's standard smooth-backed sheet flashing of same material, type, reinforcement, thickness, and color as PVC sheet membrane.

2.5 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary membrane roofing materials recommended by roofing system manufacturer for intended use, and compatible with membrane roofing.
 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Membrane Flashing Adhesive:
 1. Elastomeric solvent-based contact-type adhesive for bonding TPA fleece-backed and non-fleece-backed single ply membranes and flashings to substrates.
 - a. Density at 77 deg. F (25 deg. C), minimum, ASTM D147: 7.0 lb/gal (0.84 kg/L).
 - b. Percent solids, minimum ASTM D316: 25 percent.
 - c. VOC, maximum, ASTM D 3960: 612 g/L.
 2. Polyurethane roof coating system base coat, bio-based, low-odor low-VOC two-part, for use with a compatible top coat.
 - a. Combustion Characteristics, UL 790: Maintains combustion characteristics of existing roof system.
 - b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 1 g/L.

- c. Accelerated Weathering, 5000 hours, ASTM G154: Pass.
 - d. Hardness, Shore A, minimum, ASTM D2240: 88.
 - e. Solids, by volume, ASTM D2697: 100 percent.
 - f. Bio-Based Content, Minimum: 70 percent.
 - g. Minimum Thickness, Base Coat reinforced over Smooth BUR, MB, Concrete, Single-Ply: 48 mils (1.22 mm) wet.
3. Polyurethane roof coating system top coat, bio-based low-odor low-VOC two-part, for application over compatible base coat.
- a. Combustion Characteristics, UL790: Maintains combustion characteristics of existing roof system.
 - b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: <6 g/L.
 - c. Solar Reflectance Index (SRI), ASTM E1980: For white, not less than 103.
 - d. Accelerated Weathering, 5000 hours, ASTM G 154: Pass.
 - e. Hardness, Shore A, minimum, ASTM D2240: 81.
 - f. Solids, by volume, ASTM D2697: 100 percent.
 - g. Bio-Based Content, Minimum: 60 percent.
 - h. Minimum Thickness, reinforced system: 32 mils (0.81 mm) wet.
 - i. Minimum Thickness, non-reinforced system: 16 mils (0.40 mm) wet.
 - j. Minimum Thickness, Slip-Resistant Coat: 24 mils (0.60 mm) wet.
 - k. Color: White.
- C. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch (25 mm by 3 mm) thick; with anchors.
- D. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening components to substrate, and acceptable to membrane roofing system manufacturer.
- E. Termination Joint Sealant: Silicone, S, NS, 25 or 50, NT: Single-component, nonsag, plus 25 to 50 percent and minus 25 to 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 25, Use NT, and compatible with adjacent materials.
- F. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.

- G. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.6 ROOF INSULATION MATERIALS

- A. General: Preformed roof insulation boards manufactured or approved by roofing manufacturer, selected from insulation manufacturer's standard sizes, suitable for application, and of thicknesses indicated.
- B. Roof Insulation: Provide roof insulation product in thicknesses indicated in Part 3 as follows:
 - 1. Cellulosic-fiber Insulation Board ASTM C208, Type II, Grades 1 and 2, with water-resistant binders, chemically treated for deterioration, 1/2 inch (13 mm) thick.
 - a. Compressive strength, ASTM C165: 15 lbf/sq. in.
 - b. Thermal resistance at 75 deg. F (24 deg C.) ASTM C518: R 1.3.
 - c. Recycled content, preconsumer: 20 percent.
 - d. Rapidly renewable content: 6 percent.

2.7 WALKWAY MATERIALS

- A. Walkway Material:
 - 1. Walkway roll, reinforced PVC/TPA membrane roll with serrated slip-resistant surface, fabricated for heat welding to compatible PVC/TPA membrane surface.
 - a. Roll Size: 36 inches by 60 foot (914 mm by 18.3 m).
 - b. Thickness / Color: Gray, 0.072 inch (2 mm).
 - c. Tensile, Grab ASTM D751: 200 lbf (890 N).
 - d. Tear Strength, Tongue : 45 lbf (200N).
 - e. Low Temp Flex: -40 deg F. (-40 deg C.).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
 - 1. Verify that roof openings and penetrations are in place and curbs are set and braced and that roof drain bodies are securely clamped in place.

2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
3. Existing Prepared Roof Substrate: Verify that existing insulation and substrate is sound and dry. Refer to requirements of Section 070150 "Preparation for Reroofing."
4. Steel Roof Deck:
 - a. Verify that deck is securely fastened and properly supported with no projecting fasteners and with no adjacent units in excess of 1/16 inch (1.6 mm) out of plane relative to adjoining deck.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

3.3 INSTALLATION, GENERAL

- A. Install roofing system in accordance with manufacturer's written instructions and approved details.
- B. Install wood cants, blocking, curbs, and nailers in accordance with requirements of Division 06 carpentry section.
- C. NRCA Installation Details: Install roofing system in accordance with applicable NRCA Manual Plates and NRCA recommendations; modify as required to comply with manufacturer's approved details and perimeter fastening requirements of FM Global references if applicable.

3.4 INSULATION INSTALLATION

- A. Coordinate installing membrane roofing system components, so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with membrane roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.

- D. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - 1. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- E. Mechanically Fastened Insulation: Install each layer of insulation and secure to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
 - 1. Fasten insulation to resist uplift pressure at corners, perimeter, and field of roof.

3.5 MECHANICALLY FASTENED MEMBRANE ROOFING INSTALLATION

- A. Mechanically fasten membrane roofing over area to receive roofing and install according to roofing system manufacturer's written instructions.
 - 1. For in-splice attachment, install membranes roofing with long dimension perpendicular to steel roof deck flutes.
- B. Start installation of membrane roofing in presence of roofing system manufacturer's technical personnel.
- C. Accurately align membrane roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Mechanically fasten or adhere membrane roofing securely at terminations, penetrations, and perimeter of roofing.
- E. Apply membrane roofing with side laps shingled with slope of roof deck where possible.
- F. In-Seam Attachment: Secure one edge of membrane sheet using fastening plates or metal battens centered within membrane seam and mechanically fasten membrane sheet to roof deck.
- G. Welded Seams: Clean seam areas, overlap membrane roofing, and hot-air weld side and end laps of membrane roofing and sheet flashings according to manufacturer's written instructions to ensure a watertight seam installation.
 - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet membrane.
 - 2. Verify field strength of seams a minimum of twice daily and repair seam sample areas.
 - 3. Repair tears, voids, and lapped seams in roofing that does not comply with requirements.
- H. Spread sealant bed over deck drain flange at roof drains and securely seal membrane roofing in place with clamping ring.

3.6 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.7 WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.
- B. Roof-Paver Walkways: Refer to Section 077623 "Roof Paver Systems."
- C. Protection Mat: Install protection mat at service locations of rooftop equipment, at pedestal-supported pavers and walkways, and at additional locations indicated on Drawings.

3.8 FIELD QUALITY CONTROL

- A. Roofing Inspector: Owner will engage a qualified roofing inspector to perform roof tests and inspections and to prepare test reports.
- B. Roofing Inspector: Contractor shall engage a qualified roofing inspector for a minimum of 3 full-time days on site to perform roof tests and inspections and to prepare start up, interim, and final reports. Roofing Inspector's quality assurance inspections shall comply with applicable criteria established in ARMA/NRCA's "Quality Control Guidelines for the Application of Built-up Roofing."
- C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- D. Repair or remove and replace components of membrane roofing system where inspections indicate that they do not comply with specified requirements.
- E. Additional inspections, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.9 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing 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 membrane roofing system that does not comply with requirements; repair substrates; and repair or reinstall membrane 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 075419

SECTION 06105 - MISCELLANEOUS CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 1. Rooftop equipment bases and support curbs.
 2. Wood blocking, cants, and nailers.

1.3 DEFINITIONS

- A. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 1. NELMA - Northeastern Lumber Manufacturers Association.
 2. NLGA - National Lumber Grades Authority.
 3. SPIB - Southern Pine Inspection Bureau.
 4. WCLIB - West Coast Lumber Inspection Bureau.
 5. WWPA - Western Wood Products Association.

1.4 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials, both before and after exposure to elevated temperatures when tested according to ASTM D 5516 and ASTM D 5664.
 3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 4. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

- B. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:

1. Preservative-treated wood.

1.5 QUALITY ASSURANCE

- A. Forest Certification: For the following wood products, provide materials produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria":

1. Miscellaneous lumber.
2. Hardboard underlayment.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber, plywood, and other panels; place spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
4. Provide dry lumber with 15 percent maximum moisture content at time of dressing for 2-inch nominal (38-mm actual) thickness or less, unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWPA C2 (lumber), except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWPA C31 with inorganic boron (SBX).

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and one of the following:
 - a. Chromated copper arsenate (CCA).
 - b. Ammoniacal copper zinc arsenate (ACZA).
 - c. Ammoniacal, or amine, copper quat (ACQ).
 - d. Copper bis (dimethyldithiocarbamate) (CDDC).

- e. Ammoniacal copper citrate (CC).
 - f. Copper azole, Type A (CBA-A).
 - g. Oxine copper (copper-8-quinolinolate) in a light petroleum solvent.
2. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
- B. Kiln-dry material after treatment to a maximum moisture content of 15 percent for plywood. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark each treated item with the treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
 3. Wood framing members less than 18 inches (460 mm) above grade.
 4. Wood floor plates that are installed over concrete slabs directly in contact with earth.

2.3 MISCELLANEOUS LUMBER

- A. General: Provide lumber for support or attachment of other construction, including the following:
1. Rooftop equipment bases and support curbs.
 2. Blocking.
 3. Cants.
 4. Nailers.
- B. For concealed boards, provide lumber with 15 percent maximum moisture content and any of the following species and grades:
1. Mixed southern pine, No. 2 grade; SPIB.
 2. Hem-fir or Hem-fir (north), Standard or 3 Common grade; NLGA, WCLIB, or WWPA.
 3. Spruce-pine-fir (south) or Spruce-pine-fir, Standard or 3 Common grade; NELMA, NLGA, WCLIB, or WWPA.
 4. Eastern softwoods, No. 3 Common grade; NELMA.
 5. Northern species, No. 3 Common grade; NLGA.
 6. Western woods, Standard or No. 3 Common grade; WCLIB or WWPA.

2.4 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.

1. Where carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Wood Screws: ASME B18.6.1.
- C. Lag Bolts: ASME B18.2.1. (ASME B18.2.3.8M).
- D. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.
- E. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.
 2. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2 (ASTM F 738M and ASTM F 836M, Grade A1 or A4).

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Discard units of material with defects that impair quality of carpentry and that are too small to use with minimum number of joints or optimum joint arrangement.
- B. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- C. Apply field treatment complying with AWP A M4 to cut surfaces of preservative-treated lumber and plywood.
- D. Securely attach carpentry work as indicated and according to applicable codes and recognized standards.
- E. Countersink fastener heads on exposed carpentry work and fill holes with wood filler.
- F. Use fasteners of appropriate type and length. Pre-drill members when necessary to avoid splitting wood.

3.2 WOOD BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for screeding or attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.

END OF SECTION 06105

SECTION 07620 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following sheet metal flashing and trim:
 1. Formed roof drainage system.
 2. Formed low-slope roof flashing and trim.
 3. Formed wall flashing and trim.
 4. Formed equipment support flashing.
- B. Related Sections include the following:
 1. Division 6 Section "Miscellaneous Carpentry" for wood nailers, curbs, and blocking.
 2. Division 7 Section "07552 SBS Modified Bitumen Roofing Systems" for installing sheet metal flashing and trim integral with roofing membrane.
 3. Division 7 Section "Roof Accessories" for manufactured roof accessory units.
 4. Division 7 Section "Joint Sealants" for field-applied sheet metal flashing and trim sealants.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Install sheet metal flashing and trim to withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failing, rattling, leaking, and fastener disengagement.
- B. Water Infiltration: Provide sheet metal flashing and trim that do not allow water infiltration to building interior.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Samples for Initial Selection: For each type of sheet metal flashing and trim indicated with factory-applied color finishes.

1.5 QUALITY ASSURANCE

- A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" and the NRCA's most recent addition of "The NRCA Roofing and Waterproofing Manual". Conform to dimensions and profiles shown unless more stringent requirements are indicated.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver sheet metal flashing materials and fabrications undamaged. Protect sheet metal flashing and trim materials and fabrications during transportation and handling.
- B. Unload, store, and install sheet metal flashing materials and fabrications in a manner to prevent bending, warping, twisting, and surface damage.

1.7 COORDINATION

- A. Coordinate installation of sheet metal flashing and trim with interfacing and adjoining construction to provide a leakproof, secure, and noncorrosive installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.
 - 2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

2.2 SHEET METALS

- A. Flashing Metal: ASTM A 525(86) 24 gauge, minimum pre-finished galvanized steel, manufacturer's standard color, which will be selected by the Owner.
- B. Lead Sheet: ASTM B 749, Type L51121, copper-bearing lead sheet.

2.3 UNDERLAYMENT MATERIALS

- A. Felts: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, nonperforated.

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.
- C. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant, polyisobutylene plasticized, heavy bodied for hooked-type expansion joints with limited movement.
- D. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil (0.4-mm) dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.
- E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.5 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" and the NRCA's most recent addition of "The NRCA Roofing and Waterproofing Manual" that apply to design, dimensions, metal, and other characteristics of item indicated. Shop fabricate items where practicable. Obtain field measurements for accurate fit before shop fabrication.
- B. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
- C. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA recommendations.
- D. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
 - 1. Thickness: As recommended by SMACNA's "Architectural Sheet Metal Manual" and FMG Loss Prevention Data Sheet 1-49 for application but not less than thickness of metal being secured.

2.6 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Copings: Fabricate in minimum 96-inch- (2400-mm-) long, but not exceeding 10-foot- (3-m-) long, sections. Fabricate joint plates of same thickness as copings. Furnish with continuous cleats to support edge of external leg and drill elongated holes for fasteners on interior leg. Miter corners, seal, and solder or weld watertight.
 - 1. Joint Style: Butt, with 12-inch- (300-mm-) wide concealed backup plate.
 - 2. Fabricate copings from the following material:
 - a. Prepainted, Metallic-Coated Steel: 0.0396 inch (1.0 mm) thick.

- B. Roof and Roof to Wall Transition Expansion-Joint Cover: Fabricate from the following material:
 - 1. Prepainted, Metallic-Coated Steel: 0.0336 inch (0.85 mm) thick.
- C. Base Flashing: Fabricate from the following material:
 - 1. Prepainted, Metallic-Coated Steel: 0.0276 inch (0.7 mm) thick.
- D. Counterflashing: Fabricate from the following material:
 - 1. Prepainted, Metallic-Coated Steel: 0.0217 inch (0.55 mm) thick.
- E. Roof-Penetration Flashing: Fabricate from the following material:
 - 1. Lead: 4.0 lb/sq. ft. (1.6 mm thick), hard tempered.
 - 2. Copper: 16 oz./sq. ft. (0.55 mm thick).
 - 3. Prepainted, Metallic-Coated Steel: 0.0276 inch (0.7 mm) thick.
- F. Roof-Drain Flashing: Fabricate from the following material:
 - 1. Lead: 4.0 lb/sq. ft. (1.6 mm thick), hard tempered.

2.7 MISCELLANEOUS SHEET METAL FABRICATIONS

- A. Equipment Support Flashing: Fabricate from the following material:
 - 1. Prepainted, Metallic-Coated Steel: 0.0276 inch (0.7 mm) thick.
- B. Overhead-Piping Safety Pans: Fabricate from the following material:
 - 1. Prepainted, Metallic-Coated Steel: 0.0276 inch (0.7 mm) thick.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of work.
 - 1. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Torch cutting of sheet metal flashing and trim is not permitted.

- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.
 - 1. Bed flanges in thick coat of asphalt roofing cement where required for waterproof performance.
- C. Seal joints with butyl sealant as required for watertight construction.
 - 1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch (25 mm) into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement either way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).

3.3 ROOF DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.
- B. Downspouts: Join sections with 1-1/2-inch (38-mm) telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch (25 mm) away from walls; locate fasteners at top and bottom and at approximately 60 inches (1500 mm) o.c. in between.
 - 1. Provide elbows at base of downspout to direct water away from building.
- C. Splash Pans: Install where downspouts discharge on low-sloped roofs. Set in asphalt roofing cement compatible with roofing membrane.

3.4 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal roof flashing and trim to comply with performance requirements and SMACNA's "Architectural Sheet Metal Manual." and the NRCA's most recent addition of "The NRCA Roofing and Waterproofing Manual". Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight.
- B. Copings: Anchor to resist uplift and outward forces according to recommendations in FMG Loss Prevention Data Sheet 1-49 for specified wind zone and as indicated.
- C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for butyl sealant, extending a minimum of 4 inches (100 mm) over base flashing. Install stainless-steel draw band and tighten.
- D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches (100 mm) over base flashing. Lap counterflashing joints a minimum of 4 inches (100 mm) and bed with butyl sealant.

- E. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Install flashing as follows:
 - 1. Turn lead flashing down inside vent piping, being careful not to block vent piping with flashing.
 - 2. Seal with butyl sealant and clamp flashing to pipes penetrating roof except for lead flashing on vent piping.

3.5 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder and sealants.
- C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.
- D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 07620

SECTION 15430 - PLUMBING SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following plumbing specialties:
 - 1. Roof drains.

1.3 SUBMITTALS

- A. Product Data: Include rated capacities and shipping, installed, and operating weights. Indicate materials, finishes, dimensions, required clearances, and methods of assembly of components.
- B. Shop Drawings: Diagram power, signal, and control wiring.
- C. Field test reports.

1.4 QUALITY ASSURANCE

- A. Product Options: Drawings indicate size, profiles, and dimensional requirements of plumbing specialties and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."
- B. Plumbing specialties shall bear label, stamp, or other markings of specified testing agency.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
 - 1. Products: Subject to compliance with requirements, provide one of the products specified.
 - 2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

- B. Roof Flashing Assemblies: Manufactured assembly made of 4-lb/sq. ft. (20-kg/sq. m), 0.0625-inch- (1.6-mm-) thick, lead flashing collar and skirt extending at least 6 inches (150 mm) from pipe with galvanized steel boot reinforcement, and counterflashing fitting.
 - 1. Available Manufacturers:
 - 2. Manufacturers:

2.2 ROOF DRAINS

- A. Roof Drains,: Comply with ASME A112.21.2M.
 - 1. Body Material: Cast iron.
 - 2. Combination Flashing Ring and Gravel Stop: Required.
 - 3. Outlet: Bottom.
 - 4. Dome Material: Cast iron.
 - 5. Extension Collars: Required.
 - 6. Underdeck Clamp: Required.
 - 7. Sump Receiver: Required.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Refer to Division 15 Section "Basic Mechanical Materials and Methods" for piping joining materials, joint construction, and basic installation requirements.
- B. Install roof drains at low points of roof areas according to roof membrane manufacturer's written installation instructions.
 - 1. Install roof-drain flashing collar or flange so no leakage occurs between drain and adjoining roofing. Maintain integrity of waterproof membranes where penetrated.
 - 2. Position roof drains for easy access and maintenance.

3.2 PROTECTION

- A. Protect drains during remainder of construction period to avoid clogging with dirt and debris and to prevent damage from traffic and construction work.
- B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

END OF SECTION 15430







SCOPE OF WORK

ROOF SYSTEM

- Remove existing ballast from along the roof surface
- Temporarily weigh down the existing membrane
- Remove Designated Obsolete Equipment
- Slice the existing membrane in 10' x 10' sections along the area of work each day.
- 1/2" Wood Fiber recovery board mechanically fastened to the deck.
- Thermoplastic Tri-Polymer Sheet mechanically fastned to the deck.
- Fasten the sheet at all seams and at all angle changes as required by the manufacturer.
- Thermoplastic Tri-Polymer flashing adhered to substrate per manufacturers guidelines
- Reinforced fluid applied flashing adhered to substrate per manufacturers guidelines along all areas with under 8" flashing heights.
- Install manufacturers required termination
- Install 24 ga, prefin. galv. counterflashing.
- Reuse all undamaged coping caps- reinstall per manufacturer specifications. Replace damaged or missing coping with like kind.
- Coat all penetrations with specified coating

See: Specification for additional information

LEGEND

-  Metal Roof Sections - NIC
-  Roof Drain
-  Soil Stack
-  Mechanical Unit
-  Roof Hatch
-  Skylight

Notes

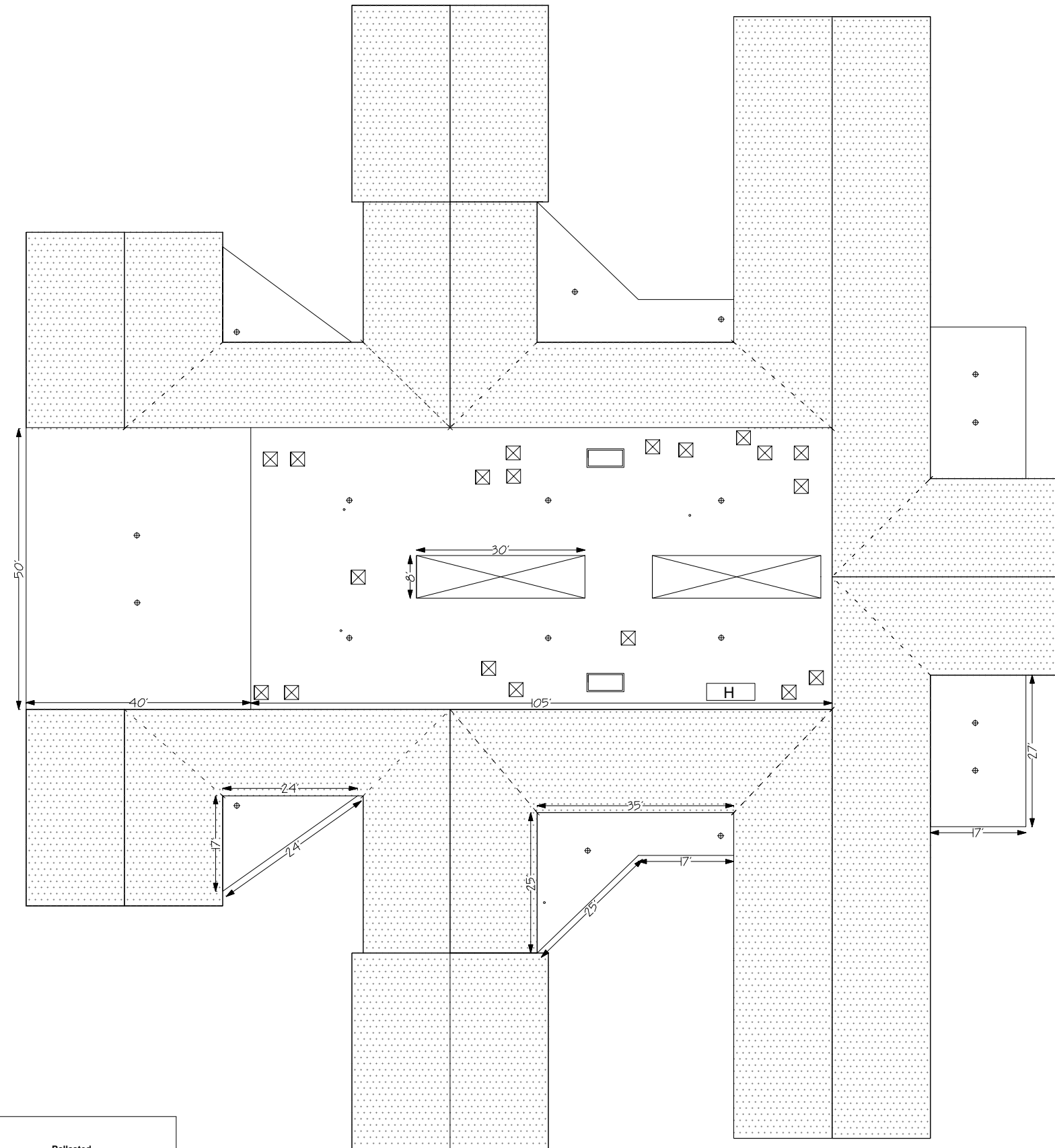
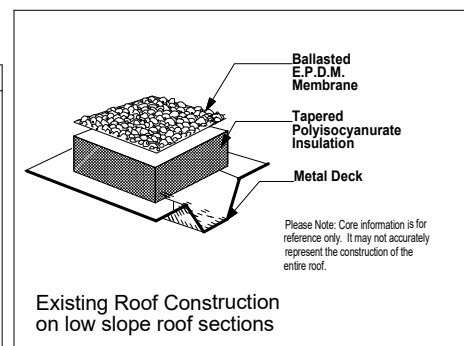
OWNER DESIGNATED EQUIPMENT TO BE REMOVED DURING PROJECT.

ANY TAPERED SADDLES TO BE INSTALLED ARE TO BE DOUBLE THE SLOPE OF THE EXISTING DECK AND LARGE ENOUGH TO PREVENT PONDING WATER.

CRICKETS ARE TO BE INSTALLED ALONG THE HIGH SIDE OF ALL ROOF PENETRATIONS THAT POND WATER.

WALK PADS TO BE INSTALLED UNDER ALL EQUIPMENT SET ON THE ROOF, AT HATCHES AND AROUND ALL LARGE MECHANICAL EQUIPMENT.

FASTEN ALL INSULATION PER MEMBRANE MANUFACTURERS REQUIREMENTS.



ROOF PLAN



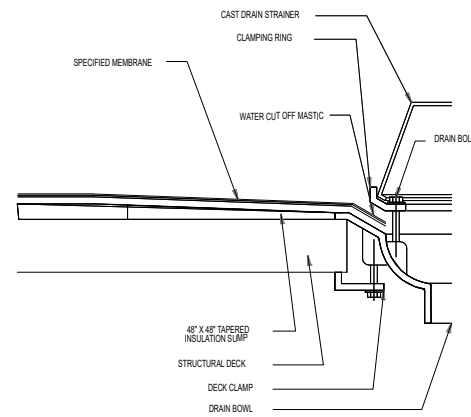
COUNTY OF WINNEBAGO
 JUVENILE DETENTION CENTER
 5350 NORTHRICK DRIVE
 ROCKFORD, ILLINOIS 61103

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| REVISED | DATE |
| | 3-9-2020 |
| | SCALE |
| | AS SHOWN |
| | COMM. No. |
| | PROJ. MGR. |
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| | RJC |

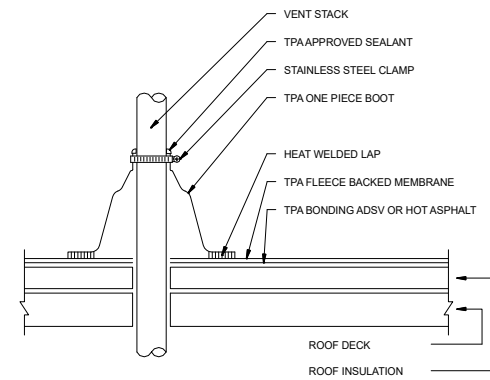
ROOF PLAN

DRAWING No.

RP1

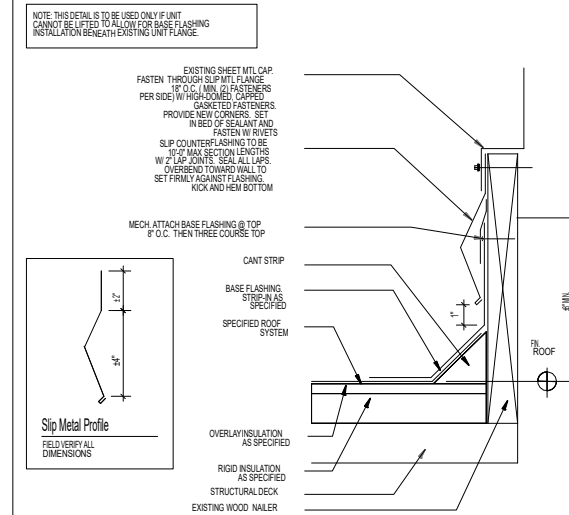


A Roof Drain
Scale 3" = 1'-0"

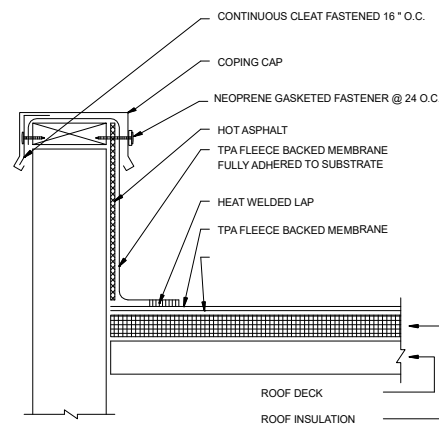


NOTES:
DO NOT CUT PREFABRICATED BOOT. IT MUST BE PULLED OVER VENT PIPE.
PREFABRICATED BOOTS ARE AVAILABLE IN SMALL & LARGE SIZES, AND MUST BE USED WHENEVER POSSIBLE TO FLASH PIPES 1" TO 8" IN DIAMETER.

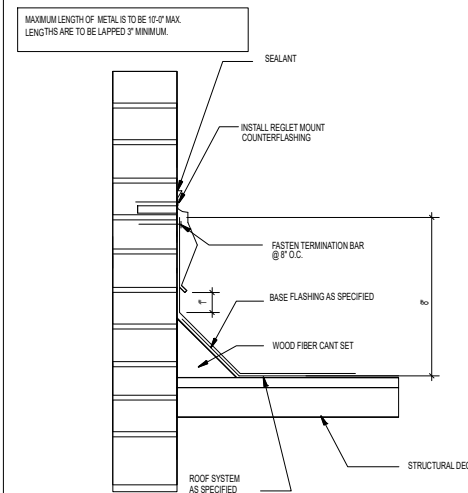
B Stack Detail
Scale 3" = 1'-0"



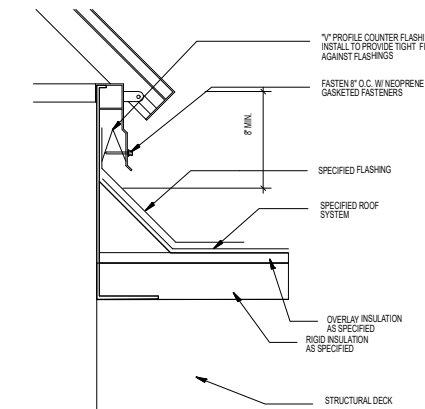
C Slip Metal Detail at Curb
Scale 3" = 1'-0"



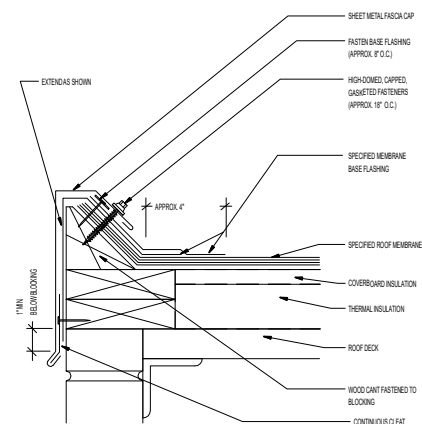
D Coping Detail
Scale 3" = 1'-0"



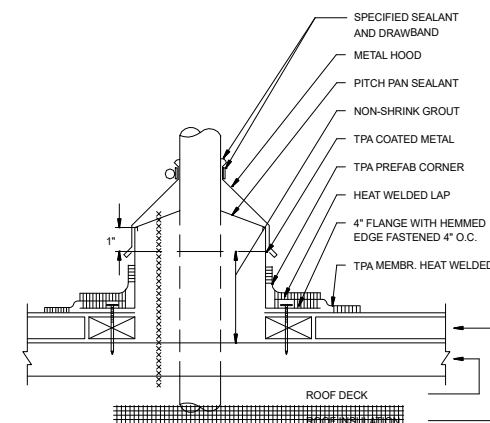
E Reglet Mount Counter Flashing Detail
Scale 3" = 1'-0"



F Hatch Flashing Detail
Scale 3" = 1'-0"

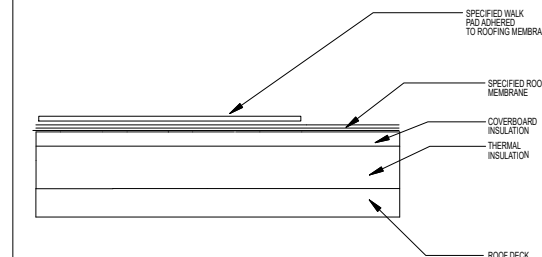


G Raised Metal Edge
Scale N.T.S.



NOTES:
USE TPA COATED METAL TO FORM PITCH PAN.
ALLOW 2" MINIMUM CLEARANCE AROUND THE PROJECTION.
TPA PREFABRICATED CORNERS MUST BE USED AT ALL 4 CORNERS

H Pitch Pocket Detail
Scale 6" = 1'-0"



I Equipment Support Pad
Scale N.T.S.

COUNTY OF WINNEBAGO
JUVENILE DETENTION CENTER
5350 NORTHROCK DRIVE
ROCKFORD, ILLINOIS 61103

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ROOF PLAN

DRAWING No.

D1