



HURST-ROSCHE, INC.

PROJECT MANUAL FOR

Roof Renovations
Housing Authority Gallatin County
Shawneetown, Gallatin County, Illinois
HR# 390-1263

Prepared for

Housing Authority Gallatin County
Shawneetown, Illinois



Karl Tabor

ISSUED FOR BID

DATE: March 26, 2024

Bid Package No. _____

HURST – ROSCHE INC.

200 North Market Street, Marion, Illinois / 618-998-0075

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HOUSING AUTHORITY GALLATIN COUNTY
SHAWNEETOWN, GALLATIN COUNTY, ILLINOIS
HR# 390-1263

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SPECIFIER:

Karl Tabor, AIA 618-998-0075

DOCUMENT 00 11 16 - INVITATION TO BID

Project: ROOF RENOVATIONS
HOUSING AUTHORITY GALLATIN COUNTY
SHAWNEETOWN, GALLATIN COUNTY, ILLINOIS
HR# 390-1263

Owner: Housing Authority Gallatin County
Shawneetown, Gallatin County, Illinois

Architect/Engineer: Hurst-Rosche, Inc.
200 North Market Street
Marion, Illinois 62959

Date: March 26, 2024

The Owner will receive **Bids** until 2:00 p.m. local prevailing time on **May 2, 2024**, at the Housing Authority Gallatin County Office, 117 West Wilson Street, Shawneetown, Illinois for the following work:

Project description:

For Base Bid, provide Roof Reconfiguration at two (2) Buildings at 405 South Combs Street, Ridgway, Illinois – Building #5 and Building #8. Work to include: New Trusses to span existing roof ridges, New Wood Sheathing as required, Wood Framing and Siding with Access Door, Additional Ceiling Insulation, New Metal Roofing and Roof Accessories, and Demolition sufficient to perform the work. Alternate No. 1 is for the same work at 123 West Wilson in Shawneetown, Illinois.

A Pre-bid Meeting will be held on April 16, 2024, at 10:00 a.m., prevailing time, beginning at 117 West Wilson conference room, Shawneetown, Illinois, and proceeding to project sites.

Drawings and specifications may be obtained at the office of **Hurst-Rosche, Inc., 200 N. Market Street, Marion, Illinois, on March 26, 2024**, by paying a non-refundable amount of \$100.00 (\$125.00 if mailed) for each set of drawings and specifications. Plans can be downloaded for free at www.hurst-rosche.com.

Bidding Documents, Drawings and Specifications, may be examined by prospective bidders and material suppliers at the offices of **Hurst-Rosche, Inc., 200 N. Market Street, Marion, Illinois** and the following Plan Rooms:

McGraw Hill Construction Dodge
www.dodgeprojects.construction.com

iSqFt Planroom
9901 Allisonville Road
Fishers, IN 46038

AGC of Western Kentucky
2201 McCracken Blvd.
Paducah, KY 42002-1059

Southern Illinois Builders Association
504 West Jackson
Marion, IL 62959

Reed Construction Data
www.reeddepr.com

Drawings and specifications will be available for viewing on the internet at: www.hurst-rosche.com. The documents are being provided for reference purposes only.

The Owner requires the Project to be completed in 240 calendar days from date of Notice to Proceed.

Bidders will be required to provide Bid security of a sum no less than 5 percent of the Bid Sum. The bid security shall be either certified check, cashier's check, bank money order or bid bond issued by surety licensed to conduct business in the State of Illinois. Hereinafter this bid security shall be referred to as the bid bond.

Submit two copies of your Bid on the Bid Form provided. Bidders may supplement this form as appropriate.

Your Bid will be required to be submitted under a condition of irrevocability for a period of 60 days after submission.

Successful bidders shall be required to observe Illinois Public Act 77-1552 and the Illinois Department of Human Rights and Illinois Human Rights Commission Rules pertaining to Equal Employment Opportunity as provided for in paragraphs 2-101, et seq., Article II, Chapter 68, of the Illinois Revised Statutes; and comply with paragraph 271 of Chapter 48 of the Illinois Revised Statutes concerning the employment of citizens of the State of Illinois; and comply with Chapter 48, Sections 39s-1 through 39s-12, of the Illinois Revised Statutes, as amended, known as the Prevailing Wage Determination, as issued by the Illinois Department of Labor.

The Owner reserves the right to accept or reject any or all Bids or any part thereof, to waive any informality in bidding, and to accept bids deemed most favorable to the Owner.

Housing Authority Gallatin County Board of Commissioners

MS. JENNIFER COX, DEPUTY EXECUTIVE DIRECTOR

MR. STEVE GALT, BOARD CHAIR

END OF DOCUMENT

DOCUMENT 00 21 14

INSTRUCTIONS TO BIDDERS - AIA

1.1 SUMMARY

- A. Document Includes:
 - 1. Instructions to Bidders.
 - 2. Site examination.
 - 3. Prebid conference.

- B. Related Documents:
 - 1. Document 00 11 16 - Invitation To Bid.
 - 2. Document 00 41 13 - Bid Form - Stipulated Sum.
 - 3. Document 00 43 00 - Procurement Form Supplements: Appendix A.
 - 4. Document 00 72 14 - General Conditions – AIA Stipulated Sum.
 - 5. Document 00 73 13 - Supplementary Conditions – AIA.

1.2 INSTRUCTIONS TO BIDDERS

- A. These Instructions to Bidders amend or supplement AIA Document A701-1997 - Instructions to Bidders and other provisions of Bidding Documents and Contract Documents.

- B. To be considered all bids must in accordance with these Instructions to Bidders.

- C. Those interested parties may obtain sets of Drawings and Specifications from the Architect/Engineer upon non-refundable deposit of \$100.00 per set (\$125.00 if mailed).

1.3 SITE EXAMINATION

- A. Bidders shall carefully examine documents and construction site to obtain first-hand knowledge of existing conditions. Contractors will not be given extra payments for conditions which can be determined by examining site and these documents.

- B. Contact Owner at the following address and phone number to arrange date and time to visit Project site:
 - 1. Housing Authority Gallatin County
 - 2. Address: 117 West Wilson, P.O. Box 277 Shawneetown, Illinois 62984.
 - 3. Contact: Jennifer Cox.
 - 4. Telephone: 618-269-3080.

1.4 THE SCHEDULE FOR BIDDING THIS PROJECT IS AS FOLLOWS

- A. **Plans Available:** March 26, 2024

- B. **Pre-Bid Meeting:** April 16, 2024
10:00 a.m.
Housing Authority Office

- C. **Latest Time to Submit Request for Interpretation:** April 26, 2024
- D. **Latest Time to Issue an Addendum:** April 29, 2024
- E. **Bid Opening** May 2, 2024
2:00 p.m.
Housing Authority Office

F. **All requests for interpretations shall be in writing via mail or fax addressed to the Architect/Engineer and must be received six (6) calendar days prior to date fixed for opening of bids in order to be given consideration. All questions must be submitted on the “Request for Interpretation Pre-Bid Question and Comment Form” included at the end of this section or other approved form, and questions not submitted accordingly and within specified time frame will not be accepted. Any and all interpretations and supplemental instructions will be made by addendum to the Drawings and Specifications and forwarded to all bidders either by certified mail or fax transmittal. All responses by the Architect/Engineer must be in writing to be binding. Any response general in nature or affecting these Instructions to Bidders shall be sent via addendum as previously described. Failure of any bidder to receive any such addendum or interpretations shall not relieve such bidder from an obligation under the bid as submitted. All addenda so issued shall become part of the Contract Documents. No addendum will be issued later than three (3) calendar days prior to bid date except one withdrawing the request for Bids or one postponing date for receiving Bids. Oral interpretations, changes or corrections will not be binding and Bidders shall not rely upon such interpretations, changes and corrections. Each Bidder shall ascertain prior to submitting Bid that all addenda issued have been received and shall acknowledge receipt in Bid.**

**Questions shall be directed to:
e-mail: ktabor@hurst-rosche.com**

G. **Materials, products and equipment described in Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Each such request shall include name of material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or other work that incorporation of the substitute would require shall be included. The burden of proof of the merit of proposed substitute is upon the proposer. Architect's decision of approval or disapproval of a proposed substitution shall be final. If the Architect approves any proposed substitution prior to receipt of Bids, such approval will be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner. No substitutions will be considered after the contract award unless specifically**

provided in the Contract Documents.

- H. Bids shall be made on unaltered Bid Forms furnished by the Architect. Fill in all blank spaces and submit two (2) copies. Bids shall be signed with name typed below signature. Where bidder is a corporation, bids must be signed with legal name of corporation followed by name of state of incorporation and legal signature of an officer authorized to bind the corporation to a contract.
- I. Each bidder submitting a bid shall submit on form provided a list of any subcontractors and major suppliers he proposes to use with the bid within 24 hours of notification that they are the apparent low bidder. Failure to do so could disqualify the bid.
- J. Each bidder shall designate on the attached bid form one person who shall serve as the bidder's contact person for all matters pertaining to the bid. In absence of such designation, the person who signs the bid shall be deemed the bidder contact.
- K. Each bid shall be accompanied by bid bond made payable to the Owner, in the amount of 5 percent of the base bid sum, exclusive of Alternates. Security shall be either certified check, cashier's check, bank money order or bid bond issued by surety licensed to conduct business in the State of Illinois. Successful bidder's security will be retained until he has signed the contract and furnished required payment and performance bonds. Owner reserves the right to retain security of the next two (2) lowest bidders until the lowest bidder enters into contract or until thirty (30) days after bid opening, whichever is shorter. All other bid security will be returned as soon as practicable. If any bidder refuses to enter into a contract, Owner will retain bid security as liquidated damages, but not as a penalty.
- L. All costs associated with the preparation and submission of a bid are the sole responsibility of the bidder. These costs shall not be chargeable to the Owner by any successful or unsuccessful bidder. All bids become the property of the Owner and shall not be returned except in the case of a late submission.
- M. Simultaneously, with delivery of the executed contract, the successful bidder, at its own expense, shall furnish surety in the form of a performance bond and a labor and material payment bond in the amount of one hundred percent (100%) of the contract amount. Surety for such bonds shall be a company duly authorized and licensed in the State of Illinois and acceptable to the Owner. The Attorney-In-Fact who signs bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.
- N. All copies of the bid, bid security and any other documents required to be submitted with bid shall be enclosed in a sealed opaque envelope. Envelope shall be addressed to Housing Authority Gallatin County, 117 West Wilson, P.O. Box 277, Shawneetown, Illinois 62984, and shall be identified with project name, bidder's name and address. Mailed bid envelopes shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof. Oral, telephonic or telegraphic Bids are invalid and will not receive consideration. Bids shall be deposited at the location designated in the Invitation to Bid prior to time and date designated for opening, or any

extension thereof made by addendum. Bidder shall assume full responsibility for timely delivery at location designated for receipt of Bids. Bids received after time and date for receipt of bids will be returned unopened.

- O. A bid may not be modified, withdrawn or canceled during the sixty (60) days immediately following bid opening, and each bidder so agrees in submitting his Bid. Any bidder may withdraw, cancel or modify its bid, at any time prior to scheduled time for opening of bids, by letter or telegram actually received by Owner prior to bid time, or, with proper identification, by personally securing bid submitted; if by telegram, written confirmation over signature of bidder shall be mailed and postmarked on or before date and time of bid opening. Withdrawn bids may be resubmitted up to bid opening time provided that they are in full compliance with these Instructions to Bidders.
- P. Protests
1. Any bidder who submitted a bid and believes the bid was improperly rejected or that the bid selected by the Owner is not in the best interest of the Owner may submit a written notice of intent to protest the bid to the Owner within seven (7) days. The Owner shall consider all protests before execution of a contract. Each protest must specify the reasons supporting the protest. The Owner may require that additional information be provided. Failure to supply such required information shall be cause for dismissal of the protest.
 2. The Owner shall immediately investigate the allegations against the Owners actions and shall issue a written response to the protest.
 3. This provision allowing for the submission of protest shall not confer any right on any bidder but is intended solely to assist the Owner in determining the best responsible bid.
- Q. Any complaint or protest of the bidding procedure must be filed by the bidder to the Owner. Within 7 days of bid opening the bidder shall notify the Owner in writing of his intent to protest bidding. The bidder shall perfect this notice of intent within 7 days.
- R. Owner reserves right to disqualify bids and bidders, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon part of bidder, lack of responsibility as evidenced by poor workmanship and progress of past work, incomplete work which, in judgment of Owner, might hinder or prevent prompt completion of additional work if awarded, for being in arrears on existing contracts, in litigation with the Owner, or having defaulted on a previous contract.
- S. Bidder's attention is directed to the fact that all Federal and Illinois State Laws, municipal ordinances and regulations of any and all authority having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full. Successful Bidders shall be required to comply with 775 ILCS 10 concerning equal employment opportunities; comply with 30 ILCS 570 concerning the employment of citizens of the State of Illinois; comply with 820 ILCS 265 concerning substance abuse prevention on public works projects; and comply with 820 ILCS 130 concerning prevailing wages.
- T. Owner is exempt from payment of Federal & Illinois Department of Revenue's Use and

Sales Tax on material entering permanently into structure. Retail sales tax shall not be included in the bid amount.

- U. Bids will be opened as announced in Invitation for Bids.
- V. Owner reserves the right to reject any or all bids or any part thereof, to waive any informalities in bidding and to accept bids deemed most favorable to the Owner.
- W. Notwithstanding any delay in preparation and execution of the formal Contract Agreement, each bidder shall be prepared, upon written notice of bid acceptance, to commence work within ten (10) days following receipt of official written Notice to Proceed, or on date stipulated in such notice.
- X. Any work in providing or preparing to provide the services specified herein that is commenced by the successful bidder prior to execution of a written contract agreement shall be at the bidder's expense.
- Y. Accepted bidder shall assist and cooperate with the Owner in preparing the formal Contract Agreement, and, within fifteen (15) days following its presentation, shall execute same and return it to Owner.
- Z. The Owner requires the Project to be substantially complete by 240 consecutive calendar days from Construction Start Date as stipulated in the Notice to Proceed.

END OF DOCUMENT

HR Project No.: 390-1263

Hurst-Rosche Engineers, Inc.

Email: ktabor@hurst-rosche.com

REQUEST FOR INTERPRETATION PRE-BID QUESTION AND COMMENT FORM

(All information entered shall be typed in black).

PROJECT NAME: Roof Renovations, Housing Authority Gallatin County, Shawneetown, Illinois

BIDDER: _____ SUBMITTED BY (Name): _____ Date: _____

ADDRESS: _____ CITY: _____ STATE: _____ PHONE: _____ Sheet _____ of _____

Question No.	Page (or Drawing Sheet) Number	Drawing No. or Spec. Section Article & Paragraph Number	Question by Bidder

NOTE: ANY AND ALL QUESTIONS PERTAINING TO THIS BID MUST BE TYPED AND SUBMITTED ON THIS FORM AND MAILED OR FAXED TO RECEIVE A RESPONSE.

BID FORM - STIPULATED SUM

To: HOUSING AUTHORITY GALLATIN COUNTY
SHAWNEETOWN, ILLINOIS

Project: ROOF RENOVATIONS
HOUSING AUTHORITY GALLATIN COUNTY
SHAWNEETOWN, GALLATIN COUNTY, ILLINOIS
HR# 390-1263

Date: _____

Submitted by: _____
(full name)

(full address) _____

Contact Name: _____

1. OFFER

Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Contract Documents prepared by Hurst-Rosche, Inc. for the above-mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of the following:

Base Bid:

All Base Bid work as described in the Invitation to Bid for Housing Authority Gallatin County.

\$ _____ dollars, in lawful money of the United States of America.

Alternates:

Alternate No. 1: Work at 123 West Wilson, Shawneetown, IL location.

\$ _____ dollars, in lawful money of the United States of America.

We have included the security Bid Bond as required by the Instruction to Bidders.

All applicable federal taxes are excluded, and State of Illinois taxes are excluded from the Bid Sum.

2. REVIEW OF BID DOCUMENTS

The bidder represents that he is skilled and experienced in the use and interpretation of drawings and specifications such as those included in the bid documents for this contract. He has carefully reviewed the drawings, specifications and other bid documents, and has found them free of ambiguities and sufficient for bid purposes. Further, the Bidder has carefully examined the site of the work and, from his own observations, has satisfied himself as to the nature and location of the work; the character, quality and quantity of materials; the difficulties likely to be encountered; and any other items which may affect the performance of the Work. He has based his bid solely on these documents and observations, and has not relied in any way on any explanation or interpretation, oral or written, from any other source.

3. CONTRACTOR’S FEE FOR CHANGES IN WORK

Undersigned herein indicates a single percentage, not to exceed 12% for own forces and not to exceed 8% for subcontractors, for overhead and profit to be added to net extra job cost for changes in the work required to be performed by:

- a) Own Forces ___% b) Subcontractors ___%

Undersigned herein indicates a single percentage, not less than 10% for own forces and not less than 5% for subcontractors, for overhead and profit to be added to net credit for job costs for changes in the work required to be performed by:

- a) Own Forces ___% b) Subcontractors ___%

Percentages named above shall not include any items of insurance, bond or taxes since these are considered job cost items in contractor's quotations for changes in the work.

Any percentages indicated which are higher or lower than the maximum or minimum in the typewritten language herewith, shall be disregarded and typewritten figure used.

4. CONTRACT TIME

Undersigned agrees that, if awarded the Contract for Work bid upon herein, work will start on date designated in a written Notice to Proceed order issued by the Architect and will be completed in accordance with the contract documents, with all phases of work completed and operational and ready for acceptance by the Owner no later than as required by the Contract Agreement.

5. ADDENDA

The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

Addendum # _____ Dated _____; Addendum # _____ Dated _____
Addendum # _____ Dated _____; Addendum # _____ Dated _____

6. APPENDICES

The following documents are attached to and made a condition of the Bid:

Bid Bond in form of
Bidder's qualifications statement and supporting data.
Document 00 43 00 - Procurement Form Supplements including:
Appendix A - List of Subcontractors.

7. EQUAL EMPLOYMENT OPPORTUNITY

During performance of this contract, Contractor agrees as follows:

- a. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- b. The contractor will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- c. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract of understanding, notice advising the labor union or worker's representative of the contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and by the rules, regulations, and relevant orders of the Secretary of Labor.
- e. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and order of the Secretary of Labor pursuant thereto, and will permit access to his books, records and accounts by the Department of the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- f. In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any such rules, regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies involved as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.
- g. The contractor will include the provisions of paragraphs (1) through (7) in every

subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Department may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with the subcontractor or vendor as a result of such direction by the Department, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

8. NOT BARRED

The contractor by submitting its bid certifies that the Contractor is not barred from bidding on the contract as a result of a conviction for either bid-rigging or bid-rotating. 720 ILCS 5/33/E-11.

9. DRUG FREE WORKPLACE

The Contractor by submitting its bid certifies that it will provide a drug free workplace and that it is in compliance with the requirements of the Drug Free Workplace Act 30 ILCS 580.1 et. seq., and the Substance Abuse Prevention on Public Works Projects Act PA095-0635.

10. SEXUAL HARASSMENT POLICY

The Contractor by submitting its bid certifies that it has a written sexual harassment, (ii) a description of sexual harassment, utilizing examples; (iv) an internal complaint process including penalties (v) the legal resource, investigative and compliant process through the Illinois Department of Human Rights; (vi) directions on how to contact the Department and Commission; and (vii) protection against retaliation for exercising rights under the policy in accordance with 775 ILCS 5/2-105(A)(4).

11. BID FORM SIGNATURES

The Corporate Seal of

(Bidder - print the full name of your firm)
was hereunto affixed in the presence of:

(Authorized signing officer Title)

(Seal)

(Authorized signing officer Title)

(Seal)

If the Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

END OF DOCUMENT

PROCUREMENT FORM SUPPLEMENTS

To: **HOUSING AUTHORITY GALLATIN COUNTY
SHAWNEETOWN, ILLINOIS**

Project: **ROOF RENOVATIONS
HOUSING AUTHORITY GALLATIN COUNTY
SHAWNEETOWN, GALLATIN COUNTY, ILLINOIS
HR# 390-1263**

Date: _____

Submitted by: _____
(full name)

(full address) _____

Contact Name: _____

In accordance with Document 00 21 14 - Instructions to Bidders - AIA and Document 00 41 13, we include the Appendices to Bid Form Supplements listed below. The information provided shall be considered an integral part of the Bid Form.

The following Appendices are attached to this document:

Appendix A - List of Subcontractors: Include names of all Subcontractors and portions of the Work each Subcontractor will perform. Those firms listed cannot be changed without approval by the owner and the Architect. Appendix A is required to be provided within 24 hours of the bid opening.

Appendix B - List of Alternates: Include cost variation to Bid [Sum] [Price] applicable to the Work described in Section 012000-Price and Payment Procedures.

BID FORM SUPPLEMENTS SIGNATURES

The Corporate Seal of

(Bidder - print the full name of your firm)
was hereunto affixed in the presence of:

(Authorized signing officer Title)
(Seal)

(Authorized signing officer Title)
(Seal)

APPENDIX A - LIST OF SUBCONTRACTORS

Herewith is the list of subcontractors referenced in the bid submitted by:

(Bidder) _____

To (Owner) Housing Authority Gallatin County

Dated _____ and which is an integral part of the Bid Form.

The following work will be performed (or provided) by subcontractors and coordinated by us:

WORK SUBJECT	NAME
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX B - LIST OF ALTERNATES

The following is the list of alternates referenced in the bid submitted by:

(Bidder) _____

To (Owner) Housing Authority Gallatin County

Dated _____ and which is an integral part of the Bid Form.

The following amounts shall be added to or deleted from the Bid Sum.

Alternate No. 1: Work at 123 West Wilson, Shawneetown, IL location.

Add \$ _____

END OF SECTION

DOCUMENT 00 52 14

AGREEMENT FORM - AIA

1.1 SUMMARY

- A. Document Includes:
 - 1. Contract Agreement.
- B. Related Documents:
 - 1. Document 00 72 14 - General Conditions – AIA Stipulated Sum.
 - 2. Document 00 73 13 - Supplementary Conditions - AIA.

1.2 CONTRACT AGREEMENT BETWEEN OWNER AND CONTRACTOR

A. THIS AGREEMENT, made and entered into as of the _____ day of _____ in the year of Two Thousand and _____ by and between _____ hereinafter and in the Contract Documents called "Contractor" and the **Housing Authority Gallatin County**, hereinafter and in the Contract Documents called "Owner."

B. WITNESSETH: That for and in consideration of the mutual covenants and agreements, hereinafter stated, Contractor and Owner covenant and agree as follows:

C. THE CONTRACT WORK:

- 1. Contractor covenants and agrees to furnish all labor, materials, equipment, transportation, construction plant and facilities necessary to perform all Work required by the Contract Documents, for the Project entitled:

- a. **ROOF RENOVATIONS
HOUSING AUTHORITY GALLATIN COUNTY
SHAWNEETOWN, GALLATIN COUNTY, ILLINOIS
HR# 390-1263**

as shown on Drawings and described in Specifications prepared by **Hurst-Rosche, Inc., Marion, Illinois**, acting as, and in these Contract Documents referred to as Architect/Engineer and covenants and agrees to do and perform all acts and things required of Contractor by this Contract and the Contract Documents.

D. TIME OF COMPLETION:

- 1. The Owner requires the Project to be substantially complete by sixty (60) consecutive calendar days from Construction Start Date as stipulated in the Notice to Proceed.

E. CONTRACT SUM AND TERMS OF PAYMENT:

- 1. Contract Sum: The Owner, if Contractor shall faithfully fulfill and perform this Contract, covenants and agrees to pay Contractor in current funds, subject to additions and deductions by Change Order as provided in the Contract

Documents, the sum of _____ Dollars (\$_____), which sum shall constitute the Contract Sum, said Contract Sum being derived from Contractor's Bid dated _____. It is understood and agreed that should there be any increase in wage rates, or in cost of materials or equipment, or in any other of Contractor's costs or should Contractor be compelled to pay premium wages, or for overtime work, during the life of this Contract and/or prior to completion of Contractor's work thereunder, Contractor shall absorb all such increased costs, without addition to the Contract Sum except when otherwise expressly provided in Contract Documents.

2. Payments: Owner shall make payments for work performed under the Contract as provided in Article Nine of the General Conditions and in accordance with other applicable articles of the Supplementary Conditions and Contract Documents.
3. Contractor's Fees for Changes in Work: In accordance with Contractor's bid, it is agreed that the following percentages for overhead and profit shall be applied on work added to or omitted from the Contract by written Change Order approved by Architect and Owner in advance of performance of the work.

Additional Work performed by:

- | | |
|---------------------|-------------------------|
| 1. Own Forces ____% | 2. Subcontractors ____% |
|---------------------|-------------------------|

Omitted Work originally required by:

- | | |
|---------------------|-------------------------|
| 1. Own Forces ____% | 2. Subcontractors ____% |
|---------------------|-------------------------|

F. CONTRACT DOCUMENTS:

1. Contract Documents include the Contract Agreement, Contractor's Bid as accepted by Owner, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, and all Addenda issued prior to, and all Modifications issued after execution of the Contract Agreement.

G. ILLINOIS LABOR:

Contractor shall comply with all Illinois statutory requirements regarding labor, including, but not limited to, the following:

1. Illinois Public Act 77-1552 and Chapter 48, Sections 39S-1 through 39S-12 of the Illinois Revised Statutes regulating wages of laborers, mechanics and other workers employed in any public works and known as the "Prevailing Wage Act," which provides in part that all laborers, mechanics, and workers performing work under the Contract shall be paid not less than the prevailing rate of wages as determined by the Illinois Department of Labor.
2. Illinois Public Act 83-1472, Article 2 and 30 ILCS 570 of the Illinois Compiled Statutes pertaining to hiring of Illinois labor and known as the "Illinois Preference Act."

3. "Illinois Human Rights Act of 1980," Chapter 68, Illinois Revised Statutes, and the Rules and Regulations, Title 44, Section 750 of the Illinois Administrative Code, Illinois Department of Human Rights; pertaining to equal employment opportunity.

H. PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND:

1. Within ten (10) days immediately following date of his receipt of this contract, Contractor shall furnish Owner the signed Contract and Performance Bond and Labor and Material Payment Bond as required by and in accordance with the terms of Contract Documents in a penal sum of one hundred percent (100%) of the Contract sum.
2. In the event Contractor fails to furnish Owner such Contract and Bonds within said period, this Contract shall thereupon become null and void at Owner's option, exercised by written registered notice and mailed to Contractor by said Owner within five (5) days thereafter. Owner may then retain and enforce as liquidated damages, bid guarantee heretofore deposited with it in connection with Contractor's proposal for this Contract or the difference between his bid and a subsequent awarded bid, whichever is lesser.

- I. IN WITNESS HEREOF, the parties hereto have executed this agreement as of the day and year first written above.

OWNER:

HOUSING AUTHORITY GALLATIN COUNTY

BY _____

TITLE _____

CONTRACTOR:

Attest:

BY _____

Secretary

BY _____

TITLE _____

(Corporate Seal)

END OF DOCUMENT

CONTRACTOR'S AFFIDAVIT FOR FINAL COMPLETION
(To be filed with final request for payment)

STATE OF _____)

COUNTY OF _____)

_____, being
first duly sworn upon oath deposes and says:

That he/she is _____ of _____

hereinafter termed "The Contractor" for all work upon the hereinafter termed "Said Project," work for the Housing Authority Gallatin County, under that certain contract between said Contractor and said Owner, bearing date of _____ pertaining to said work.

Affiant further states, of his/her own knowledge, that all bills incurred by the Contractor, for services, labor and material furnished, for work done by the Contractor under said Contract, or in connection with said project have been paid and all subcontractors who have furnished services, labor or materials have no claim or demand against Owner for any services, labor and/or materials furnished and/or work done by them upon said Project.

Affiant further states that this affidavit is made on behalf of the Contractor for the purpose of obtaining payment of the sum of

_____ (\$ _____) dollars, which affiant states, upon his/her own knowledge, constitutes the full balance due the Contractor for all services, labor and materials furnished and work done to and upon Said Project by the Contractor whether under and pursuant to provisions of said Contract and all subsequent modifications thereof and changes therein or otherwise; and that payment of the sum to the Contractor will constitute payment in full on everything due for such services, labor, materials and work, and will fully satisfy any and all claims or demands which Contractor may have or assert against said Owner, arising out of anything done or furnished by the Contractor or occurring in connection with said Project and/or Contract.

CONTRACTOR

Subscribed and Sworn to before me the _____ day of _____, 20____.

NOTARY PUBLIC

CONTRACTOR'S RELEASE AND WAIVER OF LIEN
(To be filed with final request for payment)

TO WHOM IT MAY CONCERN:

For good and valuable consideration, the receipt and sufficiency of which is

hereby acknowledged, the undersigned _____

_____ hereinafter termed "Contractor," hereby waives and releases any and all liens, and any and all claims and rights to liens against the **ROOF RENOVATIONS at HOUSING AUTHORITY GALLATIN COUNTY**, hereinafter termed "Said Project," and any and all other property owned by or the title to which is in the name of the HOUSING AUTHORITY GALLATIN COUNTY hereinafter termed "Owner" and upon construction and/or equipping of Said Project, any and all warrants drawn upon or issued against any such funds or monies which Contractor may have acquired or possessed or may hereafter acquire or possess, as a result or on account of, the furnishing by the Contractor of services, labor and material used in connection with the construction under and pursuant to the certain Contract between it and said Owner, bearing date of _____ and pertaining to Said Project, or otherwise; and which said liens or claims or rights to lien may exist under and by virtue of an act of the General Assembly of the State of Illinois entitled "An Act to Revise the Law in Relation to Mechanic's Liens," approved May 18, 1903, as amended and in accordance with Chapter 82, Illinois Revised Statutes, 1976 or subsequent amendments thereto.

The undersigned further hereby acknowledges that the sum of _____

_____ Dollars, constitutes the entire balance due the Contractor from said Owner, for all services, labor and materials furnished and work done by it, upon or for Said Project and/or under said Contract, and that the payment in full to the undersigned for everything furnished and/or done by the Contractor in connection with Said Project, whether under the Contract or otherwise, and will satisfy in full, and will operate to fully and completely release said Owner from any and all claims or demands, of whatever nature, which the undersigned may have or assert against it, arising out of the construction and equipping of Said Project, said Contract, and any and all things done or furnished by the undersigned in connection therewith.

CONTRACTOR

BY _____

TITLE _____

Subscribed and Sworn to before me this _____ day of _____, 20____.

NOTARY PUBLIC

AFFIDAVIT OF PAYMENT TO MATERIAL SUPPLIERS AND SUBCONTRACTORS

STATE OF _____

COUNTY OF _____

_____, being first duly sworn upon oath deposes and says, that he/she entered into a Contract with the HOUSING AUTHORITY GALLATIN COUNTY, known as the Owner, for furnishing of labor, work services, materials, fixtures, and supplies for construction of **ROOF RENOVATIONS** at the following described real estate: **HOUSING AUTHORITY GALLATIN COUNTY**.

That for the purpose of said Contract, the following persons, firms or corporations have been contracted with to furnish, have furnished or prepared, or will furnish or prepare labor, services, materials, fixtures, apparatus, machinery or supplies, or are furnishing and preparing material for said construction; that there are due or to become due to them respectively, the amounts set opposite their names for said labor, services, materials, fixtures, apparatus, machinery and supplies as stated; that there are no other contractors outstanding and there is nothing due or to become due any person, firm, or corporation, for labor, services, materials, fixtures, machinery, apparatus, or supplies, other than as stated herewith.

MATERIAL SUPPLIER AND/OR SUBCONTRACTOR	CONTRACT ITEM	CONTRACT AMOUNT	AMOUNT PAID TO DATE	AMOUNT DUE OR TO BECOME DUE
----------------------------------------------	------------------	--------------------	---------------------------	-----------------------------------

CONTRACTOR

Subscribed and sworn to before me, a Notary Public, this _____ day of _____; A.D. 20_____.

NOTARY PUBLIC

CONSENT OF SURETY COMPANY TO FINAL PAYMENT
(To be filed with final request for payment)

PROJECT: Roof Renovations
(Name, address) Housing Authority Gallatin County
Shawneetown, Illinois

TO (Owner): Housing Authority Gallatin County
(Name, address) Shawneetown, IL

CONTRACTOR:
(Name, address)

CONTRACT DATE:

BOND NO.:

In accordance with the provisions between Owner and Contractor indicated above, _____

_____ SURETY COMPANY, hereby
approves of final payment to Contractor, and agrees that final payment to Contractor shall not relieve
Surety Company of any of its obligations to Owner, as set forth in Surety Company's bond.

IN WITNESS WHEREOF, Surety Company has hereunto set its hand this _____ day of
_____, 20____.

Attest:

Surety Company

(Seal):

Signature of Authorized Representative

Title

DOCUMENT 00 72 14

GENERAL CONDITIONS – AIA STIPULATED SUM

1.1 SUMMARY

- A. Document Includes:
 - 1. General Conditions.
- B. Related Documents:
 - 1. Document 00 52 14 – Agreement Form – AIA Stipulated Sum.
 - 2. Document 00 73 13 – Supplementary Conditions - AIA.

1.2 GENERAL CONDITIONS

- A. AIA Document A201-2007, General Conditions of the Contract for Construction, is the General Conditions of the Contract.

1.3 SUPPLEMENTARY CONDITIONS

- A. Refer to Document 00 73 13 for modifications to General Conditions.

END OF DOCUMENT

DOCUMENT 00 73 13

SUPPLEMENTARY CONDITIONS - AIA

1.1 SUMMARY

- A. Document Includes:
 - 1. General Conditions.
 - 2. Supplementary Conditions.
- B. Related Documents:
 - 1. Document 00 41 13 – Bid Form – Stipulated Sum
 - 2. Document 00 52 14 – Agreement Form - AIA

1.2 GENERAL CONDITIONS

- A. The General Conditions of the Contract for Construction, AIA Document A201, Sixteenth Edition, 2007, Articles 1 through 15, is a part of this Contract and is incorporated herein as fully as if here set forth. Copies of the General Conditions are on file and may be reviewed at the offices of the Architect, or may be obtained from the American Institute of Architects, St. Louis Chapter, 911 Washington St., #225, St. Louis, Missouri 63101-1203.

1.3 SUPPLEMENTARY CONDITIONS

- A. The following supplements modify, change, delete from or add to the "General Conditions of the Contract for Construction," AIA Document A201, Sixteenth Edition, 2007. Where any Article of the General Conditions is modified or changed or any Paragraph, Subparagraph or Clause thereof is modified, changed or deleted by these supplements, the unaltered provisions of that Article, Paragraph, Subparagraph or Clause shall remain in effect.

1.4 REFERENCE TO DIVISION 01

- A. Where provisions of General Conditions relate to project administrative or work-related requirements of the Contract, and those provisions differ from those specified in Division 01, provisions outlined in Division 01 shall prevail.

1.5 ARTICLE 1: GENERAL PROVISIONS

- A. 1.5.1 In the second line following the word "Specifications" insert the words "and Project Manual,".
- B. 1.6 TRANSMISSION OF DATA IN DIGITAL FORM: Add new subparagraph 1.6.1:

1.6.1 Electronic drawings provided by the Owner or Architect are for informational purposes only and are not intended for any other use. The paper copies provided

are a true representation of the completed design and if discrepancies should exist between the paper copy and the electronic copy, the paper copy shall govern.

- C. Delete Subparagraph 1.1.8 its entirety and substitute the following:

1.1.8 INITIAL DECISION MAKER

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2. If the Initial Decision Maker is not specifically identified in the Agreement, the responsibilities of the Initial Decision Maker shall default to the Architect.

- D. DEFINITIONS: Add Paragraph 1.1.9

1.1.9 PROJECT MANUAL

The Project Manual is the collection of documents which includes the bidding requirements, sample forms and, certain Contract Documents such as the Conditions of the Contract and the Specifications.

1.6 ARTICLE 2: OWNER

- A. 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER:

- B. Delete Subparagraphs 2.2.3 and 2.2.5 in their entireties and substitute the following:

2.2.3 The Owner shall, at the request of the Contractor, furnish to Contractor any survey or other similar descriptive information of project site that Owner has in his possession. Upon demonstration of need by Contractor for specific additional survey information, Owner shall obtain and furnish such information to Contractor.

2.2.5 Contractor will be furnished, free of charge, 4 copies of Drawings, Specifications, and Project Manual as set forth in Division 1 of the Specifications. Additional copies will be furnished to Contractor at cost of reproduction, postage and handling.

1.7 ARTICLE 3: CONTRACTOR

- 3.2. REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR: Add Subparagraphs 3.2.5 and 3.2.6:

3.2.5 The Contractor by executing the Contract represents that he has carefully examined the Site of the Work at each location and that he has full knowledge of and fully understands the facilities, site conditions, difficulties and restrictions attending performance of the Work. Contractor further represents that he has taken all required measurements and carefully inspected existing constructions, irregularities and interferences which may affect the Work. No additional compensation will be allowed for conditions increasing Contractor's cost which

were not known to or appreciated by him prior to executing the Contract if they could have been discovered by him following the foregoing procedures and thoroughly informing himself of all existing conditions affecting the Work.

3.2.6 Contractor will not, however, be required to excavate, penetrate or demolish any constructions or other work and conditions prior to executing the Contract in order to uncover and/or expose concealed conditions that affect the Work. If, during course of construction, Contractor uncovers conditions that affect the work that could not have been known and understood by the above described careful examination of conditions affecting the Work, he shall promptly notify the Architect, in writing, who will determine if claims for additional costs or extensions of time are justified. If such claims are found to be justified, Contract will be modified in accordance with Article 7 of the General Conditions.

1.8 ARTICLE 4: ARCHITECT

A. 4.1 GENERAL: Delete Subparagraph 4.1.1 in its entirety and substitute the following:

4.1.1 The Owner shall retain an architect or engineer lawfully licensed to practice architecture or engineering or an entity lawfully practicing architecture or engineering in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

1.9 ARTICLE 5: SUBCONTRACTORS

A. 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK: Add new Subparagraph 5.2.1.1.:

5.2.1.1. Within ten (10) days of notification of acceptance of his proposal, Contractor shall submit the names of those to whom he intends to award a Subcontract.

1.10 ARTICLE 6: CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

A. 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS: Delete Subparagraph 6.1.3 in its entirety and substitute the following:

6.1.3 General Contractor shall have responsibility of coordinating efforts of all contractors and to maintain overall direction of job progress. Each Contractor shall coordinate operational methods with other contractors and encourage communications among all trades. All Contractors shall make other contractors aware of any problems, delays in materials shipments or lack of work force, and assist other contractors in maintaining job momentum and direction of overall project.

1.11 ARTICLE 9: PAYMENTS AND COMPLETION

A. 9.3 APPLICATIONS FOR PAYMENT: Add new Subparagraph 9.3.1.3

9.3.1.3.: Until Substantial Completion, the Owner will pay 90 percent of the amount due Contractor on account of approved progress payments.

1.12 ARTICLE 11: INSURANCE AND BONDS

A. 11.1.1 In the first line following the word "maintain," insert the words "in a company or companies licensed to do business in the state in which the project is located and rated 'A' or better by A.M. Best Co.."

B. Add new Subparagraph 11.1.1.9:

11.1.1.9 General Liability Insurance shall be comprehensive, on occurrence, and shall include:

- Premises and Operations.
- Independent Contractors.
- Products and Completed Operations.
- Broad Form Property Damage.
- Personal Injury.
- Explosion, Collapse and Underground damage where the hazard exists.
- Contractual liability.

C. Add the following Sub-Subparagraphs to Subparagraph 11.1.2:

11.1.2.1 The insurance required by Subparagraph 11.1.1 shall be on a project specific basis and written for not less than the following, or greater if required by law:

1. Worker's Compensation:

- a. State: Statutory
- b. Applicable Federal: Statutory
- c. Employer's Liability: \$500,000

2. Comprehensive General Liability:

a. Bodily Injury:

\$1,000,000 Combined Single Limit

b. Property Damage:

\$1,000,000 Combined Singled Limit

Limit Coverage for bodily injury and property damage per occurrence and in the same aggregate limit will be accepted in lieu of the separate limits specified above.

3. Personal Injury:
\$ 1,000,000 Combined single limit including owned non-owned, and hired motor vehicle.
4. Comprehensive Automobile Liability:
 - a. Bodily Injury:
\$1,000,000 Combined single limit including owned, non-owned, and hired motor vehicle.
 - b. Property Damage:
\$1,000,000 Combined single limit including owned, non-owned, and hired motor vehicle
 - c. \$1,000,000 Combined Single

Limit coverage for bodily injury and property damage per occurrence and in the same aggregate limit will be accepted in lieu of the separate limits specified above.

11.1.2.2 Umbrella Form Liability Coverage:

An Umbrella Form Liability coverage to not less than \$2,000,000 for any one occurrence and subject to the same aggregate over the Employer's Liability, Comprehensive General Liability, and Comprehensive Automobile Liability coverage is required.

D. Add the following Subparagraph 11.1.3.1:

11.1.3.1 Contractor shall furnish one copy each of Certificates of Insurance herein required for each copy of the Agreement which shall specifically set forth evidence of all coverage required by Paragraph 11.1. The Certificate of Insurance is to be accompanied by AIA Document G715TM-1997 (Supplemental Attachment for ACORD Certificate of Insurance 25-S). Contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits. The Contractor shall furnish to the Owner notice of any policy cancellation at least 30 days (10 days for non payment of premiums) prior to the effective date of cancellation. The Contractor shall submit copies of subcontractor's Certificates of Insurance prior to the beginning of work.

E. Add the following Subparagraph 11.1.4.1:

11.1.4.1 The Owner and Architect shall be named as additional insureds on ISO form 20331001 by endorsement for the purpose of coverage only with no liability for premium payments. All policies and coverages shall include a waiver of subrogation in favor of the Owner, Architect, and all subconsultants.

F. 11.3. PROPERTY INSURANCE: Delete Subparagraph 11.3.1 in its entirety and substitute the following:

11.3.1: The General Contractor shall be responsible to maintain property (builder's risk) insurance upon the completed value of all work at the site under this contract to the full insurable value thereof. This insurance shall include the interests of the Owner, the General Contractor, Subcontractors, and Sub-subcontractors in the work and as their interests may appear in the work, and shall be an all-risk type policy, including theft, subject to the exclusions generally accepted in the insurance industry. This coverage is not intended to, and shall not, provide coverage for tools, equipment, scaffolding, forms, or other devices used by the Contractors or Subcontractors in performing work under this contract.

11.3.1.2 Delete this Paragraph in its entirety.

G. Delete Subparagraphs 11.3.1.3 in its entirety and substitute the following:

11.3.1.3 If the property insurance requires deductibles, the Contractor shall pay costs not covered because of such deductibles.

1.13 ARTICLE 13: MISCELLANEOUS PROVISIONS

A. Add new paragraph 13.8 as follows:

13.8 REFERENCED STANDARDS

13.8.1 No provision of any referenced standard specification, manual or code; whether or not specifically incorporated by reference in the Contract Documents; shall be effective to change the duties and responsibilities of Owner, Contractor or Architect, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Architect, or any of Architect's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Articles 1 through 15.

END OF SECTION

Document 00 82 50

Prevailing Rate of Wages

ARTICLE 25: PREVAILING RATE OF WAGES

25.1 Pursuant to Illinois Compiled Statutes 820 ILCS 130/0.01 et seq., these specifications list on the following pages, the Illinois Department of Labor prevailing rate of wages for the county where the contract is being performed and for each craft or type of worker needed to execute the contract.

END OF SECTION

Gallatin County Prevailing Wage Rates posted on 3/4/2024

Trade Title	Rg	Type	C	Base	Foreman	Overtime							Trng	Other Ins	Add OT 1.5x owed	Add OT 2.0x owed
						M-F	Sa	Su	Hol	H/W	Pension	Vac				
ASBESTOS ABT-GEN	All	ALL		32.51	32.96	1.5	1.5	2.0	2.0	8.03	18.20	0.00	0.90	0.00	0.00	
ASBESTOS ABT-MEC	All	BLD		26.45	27.45	1.5	1.5	2.0	2.0	10.20	8.75	0.00	0.50	0.00	0.00	
BOILERMAKER	All	BLD		42.50	46.00	1.5	1.5	2.0	2.0	7.07	27.21	0.00	1.06		0.00	
BRICK MASON	All	BLD		35.00	37.10	1.5	1.5	2.0	2.0	9.60	11.50	0.00	0.95	0.00	0.00	
CARPENTER	All	BLD		41.33	43.83	1.5	1.5	2.0	2.0	10.00	10.55	0.00	0.70	0.00	0.00	
CARPENTER	All	HWY		39.77	41.27	1.5	1.5	2.0	2.0	10.00	10.55	0.00	0.70	0.00	0.00	
CEMENT MASON	All	BLD		32.31	33.81	1.5	1.5	2.0	2.0	10.00	10.62	0.00	0.50	0.00	0.00	
CEMENT MASON	All	HWY		33.05	34.05	1.5	1.5	2.0	2.0	10.00	10.37	0.00	0.50	0.00	0.00	
CERAMIC TILE FINISHER	All	BLD		28.08		1.5	1.5	2.0	2.0	9.05	7.69	1.00	0.85	0.00	0.00	
ELECTRIC PWR EQMT OP	All	ALL	1	50.37		1.5	1.5	2.0	2.0	8.60	14.10	0.00	0.50	0.00	0.00	
ELECTRIC PWR EQMT OP	All	ALL	2	44.92		1.5	1.5	2.0	2.0	8.60	12.58	0.00	0.45	0.00	0.00	
ELECTRIC PWR GRNDMAN	All	ALL		36.89		1.5	1.5	2.0	2.0	8.60	10.33	0.00	0.37	0.00	0.00	
ELECTRIC PWR LINEMAN	All	ALL		63.30	67.61	1.5	1.5	2.0	2.0	8.60	17.73	0.00	0.63	0.00	0.00	
ELECTRICIAN	All	ALL		49.92	53.42	1.5	1.5	2.0	2.0	10.35	16.48	0.00	1.00		18.73	
ELECTRONIC SYSTEM TECH	All	BLD		37.93	40.93	1.5	1.5	2.0	2.0	9.30	8.53	0.00	0.40		9.48	
ELEVATOR CONSTRUCTOR	All	BLD		57.69	64.90	2.0	2.0	2.0	2.0	16.07	20.56	4.61	0.70		0.00	
FLOOR LAYER	All	BLD		38.73	40.23	1.5	1.5	2.0	2.0	10.00	10.55	0.00	0.70	0.00	0.00	
GLAZIER	All	BLD		30.87	32.37	1.5	1.5	2.0	2.0	7.59	11.14	0.00	0.30	0.05	0.00	
HEAT/FROST INSULATOR	All	BLD		33.44	34.94	1.5	1.5	2.0	2.0	7.60	14.14	0.00	0.48	0.00	0.00	
IRON WORKER	All	ALL		31.99	34.24	1.5	1.5	2.0	2.0	10.55	15.00	0.00	0.65	0.00	0.00	
LABORER	All	BLD		31.51	31.96	1.5	1.5	2.0	2.0	8.03	18.20	0.00	0.80	0.00	0.00	
LABORER	All	HWY		31.51	31.96	1.5	1.5	2.0	2.0	8.03	18.20	0.00	0.80	0.00	0.00	
LABORER	All	O&C		23.63	24.08	1.5	1.5	2.0	2.0	8.03	18.20	0.00	0.80	0.00	0.00	
MACHINIST	All	BLD		55.74	59.74	1.5	1.5	2.0	2.0	9.93	8.95	1.85	1.47		0.00	
MARBLE FINISHER	All	BLD		28.08		1.5	1.5	2.0	2.0	9.05	7.69	1.00	0.85	0.00	0.00	
MARBLE MASON	All	BLD		33.62		1.5	1.5	2.0	2.0	9.05	9.25	1.00	0.94	0.00	0.00	
MILLWRIGHT	All	BLD		41.33	43.83	1.5	1.5	2.0	2.0	10.00	10.55	0.00	0.70	0.00	0.00	

Gallatin County Prevailing Wage Rates posted on 3/4/2024

MILLWRIGHT	All	HWY		39.77	41.27	1.5	1.5	2.0	2.0	10.00	10.55	0.00	0.70	0.00	0.00	0.00
OE RIVER 1	All	RIV	1	36.48	37.48	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
OE RIVER 2	All	RIV	2	33.03	37.48	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
OPERATING ENGINEER	All	ALL	1	36.38	37.38	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
OPERATING ENGINEER	All	ALL	2	34.48	37.38	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
OPERATING ENGINEER	All	ALL	3	27.08	37.38	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
OPERATING ENGINEER	All	O&C	1	27.29	27.29	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
OPERATING ENGINEER	All	O&C	2	25.86	25.86	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
OPERATING ENGINEER	All	O&C	3	20.31	20.31	1.5	1.5	2.0	2.0	11.85	13.45	0.00	4.15	0.00	0.00	0.00
PAINTER	All	BLD		31.82	33.32	1.5	1.5	2.0	2.0	7.85	12.57	0.00	0.55	0.00	0.00	0.00
PAINTER	All	HWY		36.12	37.62	1.5	1.5	2.0	2.0	7.85	12.57	0.00	0.55	0.00	0.00	0.00
PAINTER OVER 30 FT.	All	BLD		33.82	35.32	1.5	1.5	2.0	2.0	7.85	12.57	0.00	0.55	0.00	0.00	0.00
PAINTER PWR EQMT	All	BLD		32.82	34.32	1.5	1.5	2.0	2.0	7.85	12.57	0.00	0.55	0.00	0.00	0.00
PAINTER PWR EQMT	All	HWY		37.12	38.62	1.5	1.5	2.0	2.0	7.85	12.57	0.00	0.55	0.00	0.00	0.00
PILEDRIVER	All	BLD		41.33	43.83	1.5	1.5	2.0	2.0	10.00	10.55	0.00	0.70	0.00	0.00	0.00
PILEDRIVER	All	HWY		39.77	41.27	1.5	1.5	2.0	2.0	10.00	10.55	0.00	0.70	0.00	0.00	0.00
PIPEFITTER	All	BLD		43.75	48.13	1.5	1.5	2.0	2.0	11.35	12.90	0.00	2.50	0.00	0.00	0.00
PLASTERER	All	BLD		32.31	33.81	1.5	1.5	2.0	2.0	10.00	10.62	0.00	0.50	0.00	0.00	0.00
PLUMBER	All	BLD		43.75	48.13	1.5	1.5	2.0	2.0	11.35	12.90	0.00	2.50	0.00	0.00	0.00
ROOFER	All	BLD		31.60	33.60	1.5	1.5	2.0	2.0	9.72	9.11	0.00	0.54	0.00	0.00	0.00
SHEETMETAL WORKER	All	ALL		39.53	41.03	1.5	1.5	2.0	2.0	11.05	9.81	2.37	0.71	1.88	0.00	0.00
SPRINKLER FITTER	All	BLD		47.09	50.09	1.5	1.5	2.0	2.0	11.45	14.92	0.00	0.52	0.00	0.00	0.00
STONE MASON	All	BLD		35.00	37.10	1.5	1.5	2.0	2.0	9.60	11.50	0.00	0.95	0.00	0.00	0.00
TERRAZZO FINISHER	All	BLD		28.08		1.5	1.5	2.0	2.0	9.05	7.69	1.00	0.85	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	1	42.25	46.61	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	2	42.83	46.61	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	3	43.15	46.61	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	4	43.50	46.61	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	5	44.61	46.61	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	O&C	1	33.80	37.26	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00

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TRUCK DRIVER	All	O&C	2	34.26	37.26	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	O&C	3	34.52	37.26	1.5	1.5	2.0	2.0	15.39	7.73	0.00	0.25	0.00	0.00	0.00
TUCKPOINTER	All	BLD		35.00	37.10	1.5	1.5	2.0	2.0	9.60	11.50	0.00	0.95	0.00	0.00	0.00

Legend

Rg Region

Type Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers

C Class

Base Base Wage Rate

OT M-F Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

OT Sa Overtime pay required for every hour worked on Saturdays

OT Su Overtime pay required for every hour worked on Sundays

OT Hol Overtime pay required for every hour worked on Holidays

H/W Health/Welfare benefit

Vac Vacation

Trng Training

Other Ins Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

Explanations GALLATIN COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

Oil and chip resealing (O&C) means the application of road oils and liquid asphalt to coat an existing road surface, followed by application of aggregate chips or gravel to coated surface, and subsequent rolling of material to seal the surface.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

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LABORER - OIL AND CHIP RESEALING ONLY

Hook and unhook chip box from aggregate truck; distribute material within chip box; perform flagging work related to oil and chip resealing; hand spray oil fluids; handle traffic control, including setting-up and maintaining barricades, drums, cones, delineators, signs and other such items, as well as laying-out and applying or removing temporary roadway markings used to control traffic in job site related to oil and chip resealing; and perform clean-up related to oil and chip resealing.

CERAMIC TILE FINISHER, MARBLE FINISHER, TERRAZZO FINISHER

Assisting, helping or supporting the tile, marble and terrazzo mechanic by performing their historic and traditional work assignments required to complete the proper installation of the work covered by said crafts. The term "Ceramic" is used for naming the classification only, and is in no a limitation of the product handled. Ceramic takes into consideration most hard tiles.

ELECTRIC POWER LINEMAN

Construction, maintenance and dismantling of overhead and underground electric power lines, including high voltage pipe type cable work, and associated structures and equipment.

ELECTRIC POWER EQUIPMENT OPERATOR - CLASS 1

Operation of all crawler type equipment D-4 and larger from the ground to assist the Electric Power Linemen in performing their duties.

ELECTRIC POWER EQUIPMENT OPERATORS - CLASS 2

Operation of all other equipment from the ground to assist the Electric Power Linemen in performing their duties.

ELECTRIC POWER GROUNDMAN

Applies to workers who assist the Electric Power Lineman from the ground.

ELECTRONIC SYSTEMS TECHNICIAN

Installation, service and maintenance of low-voltage systems which utilizes the transmission and/or transference of voice, sound, vision, or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background/foreground music, intercom and telephone interconnect, field programming, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school, intercom and sound burglar alarms and low voltage master clock systems.

Excluded from this classification are energy management systems, life safety systems, supervisory controls and data acquisition systems not intrinsic with the above listed systems, fire alarm systems, nurse call systems and raceways exceeding fifteen feet in length.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION Class 1. Drivers on 2 axle trucks hauling less than 9 ton. Air

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compressor and welding machines and brooms, including those pulled by separate units, truck driver helpers, warehouse employees, mechanic helpers, greasers and tiremen, pickup trucks when hauling materials, tools, or workers to and from and on-the-job site, and fork lifts up to 6,000 lb. capacity.

Class 2. Two or three axle trucks hauling more than 9 ton but hauling less than 16 ton. A-frame winch trucks, hydrolift trucks, vector trucks or similar equipment when used for transportation purposes. Fork lifts over 6,000 lb. capacity, winch trucks, four axle combination units, and ticket writers.

Class 3. Two, three or four axle trucks hauling 16 ton or more. Drivers on water pulls, articulated dump trucks, mechanics and working forepersons, and dispatchers. Five axle or more combination units.

Class 4. Low Boy and Oil Distributors.

Class 5. Drivers who require special protective clothing while employed on hazardous waste work.

TRUCK DRIVER - O & C (Oil and Chip Resealing ONLY)

It involves driving of contractor or subcontractor owned, leased, or hired pickup, dump, service, or oil distributor trucks. Includes transporting materials and equipment (including, but not limited to oils, aggregate supplies, parts, machinery and tools) to or from the job site; distributing oil or liquid asphalt and aggregate; stock piling material; and maintaining trucks at job site related to oil and chip resealing.

Class 1. Distributors, liquid asphalt hauling and hauling of asphalt rubber-tired rollers.

Class 2. Stockpiling.

Class 3. Tandem hauling to job site.

OPERATING ENGINEERS - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. All Off Road Material Hauling Equipment, All Terrain Crane, Articulated Dump, Asphalt Machine Spreader, Asphalt Plant Assistant Operator, Asphalt Plant Operator, Asphalt Widener, Assistant Operator on Rotomills, Autograder, Automatic Slipform Pavers, Backend Man on Asphalt Machine, Backhoes, Barrel Grappler Devices (All), Blacksmith, Blade Operators (All), Boat Engineer, Boat Operators (All) Bridges, Dams & Waterways, Boat Pilots requiring certification and or licensing, Boilers, Boom or Winch Cat, Boom or Winch Type Trucks, Boring Machines – Horizontal, Clamshell, Orange Peel Operator, Concrete Breaker, Concrete Groover, Concrete Grinder, Concrete Curb Machine, Concrete Finish Machine or Spreader Operator, Concrete Mixer Paver, Concrete Pump Truck, Concrete Plant Operator, Concrete Wheel Saw Operators, Cranes (All) Truck/Track/Rubber, Crane (Overhead) Operator, Derrick Guy or Derrick Trucks, Dingo, Ditching Machines (All), Dozer Operators, Dragline or Shovel Operators, Dredge Booster Pump, Dredge Engineman, Dredge Operator/Leverman, Drill Cat w/Compressor Mounted, Drilling or Boring Machine Rotary – Self-Propelled, Endloaders (All) Track/Rubber Elevating Grader, Flexplane, Forklifts/Tele-Handlers (All), Geothermal Well Drilling, GPS on machines already under the jurisdiction of Local 318, Gradall, Greasers, Heavy Equipment Robotics Operator, Horizontal Directional Drill Locate Box, Hydro Excavation Equipment, Self Propelled or Pull Type (All), Hi-Lift, Hoists, Hoisting Engine, Horizontal Directional Drill Operator, Incinerators (Haz-Mat only), Laser Screed, Locomotive/Operator,

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Master Mechanic, Marooka Buggies, Mixers 21 cu. ft. or over, Motor Patrol, Pile driver Operator, Post Driving Equipment, Pulls & Scrappers, Power Pac & Controls (Pile Driving), Pug mill, Pulverizer or Tillers, Push Cats, Quad Trac, Rotating Cab Forklifts, Rotomills, Rubber Tired Farm Tractor with Attachments over 1/2 yd., Self-Propelled Chip Spreader, Self-Propelled Roller w/Attachments, Shot Blaster/Bridge Deck, Shuttle Buggy, Side booms, Skid loader (Skid steers), Skimmer Scoop, Spyder Cranes, Stationary Rock Slinger, Trackhoe and All Attachments, Trench Machine Operator, Tuggers, Ultra High Pressure Water Jet Cutting Machine, Vacuum, Vacuum Blasting Machine Operator, Vac Jet, Welders, Well or Caisson Drills, Well Point Pumps - 2 or more, Wood Chipper w/Tractor

Class 2. (Oilers) Shall be classified as Assistant Operators, Air Track Drill w/Compressor, All Machines used to Sweep, Clean, Broom or remove debris or snow, Any type Tractor pulling Roller or Disc, Automatic Bins or Scales w/compressor or generator, Bulk cement Plant w/Separate Compressor, Concrete Curb Machine requiring Electronics, Concrete Plant Assistant Operators, Concrete or Pump crete Pumps, Deck Hand on Boats, Dredge Assistant Operator/Mate, Power Broom, Self-Propelled Roller/Compactor, Straw Mulcher Blower, Stump Cutter Machine, Two Air Compressors (220 CFM or over), Two Air Track Drills, Air compressor w/valve driving piling, Assistant Operator (where required, refer to Article VII, Section 9), Elevator Operator, Form Grader, Man Lift (Scissor Lift) when lifting materials, Pile driver activating air or hydraulic valve regardless of location, Rubber-Tired Farm Type Tractor w/Blade/Bulldozer/Auger/Hi-Lift of 1/2 yd. or less, Self-Propelled Concrete Saw, Self-propelled Robotics roller in use two (2) continuous hours or more shall be manned by an operating engineer, Self-Propelled Vibrator, Truck Crane assistant operator, Two Conveyors

Class 3. Mechanic in permanent shops without separate signed Collective Bargaining Agreements Nov. 1 thru March 31, Air Compressor (220 CFM or over) One, Air Track Drill (one), Automatic Bin, Belt Drag Machine, Bulk Cement Plant w/Built-in Compressor running off same motor or electric motor, Fireman or Switchman, Mechanical plasterer applicator, Pipe Tract Jack, Self-Propelled Form Tamper, Trac-Air, Mixers - less than 21 cu.ft, Mortar Mixer w/ski or pump, Mud jacks, One Well Point Pump Wood Chipper One Operating Engineer may operate or maintain any combination of the following pieces of equipment, not to exceed four (4), which shall be within reasonable distance; such combination may include the equipment in this classification: Air Compressor (under 220 CFM) Four Light Plants Generators Pumps Conveyors Motor Driven Heaters (2) Welding Machines Ulmac or Equal Spreader

OPERATING ENGINEER - O & C (Oil and Chip Resealing ONLY). Includes the operation of all motorized heavy equipment used in oil and chip resealing, including but not limited to operating self-propelled chip spreaders, and all types of rollers (both hard and rubber tired); and other duties pertaining to the operation or maintenance of heavy equipment related to oil and chip resealing.

Class 1. See Class 1 above for types of equipment operated.

Class 2. See Class 2 above for types of equipment operated.

Class 3. See Class 3 above for types of equipment operated.

OPERATING ENGINEER RIVER WORK 1 - operate the following machines when working on River Work and Levee Work on the Mississippi and Ohio Rivers, Lakes and Tributaries: All Off Road Material Hauling Equipment, All Terrain Crane, All Power Boat

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Operators, Articulated Dump, Asphalt Machine Spreader, Asphalt Plant Operator, Asphalt Widener, Autograder, Automatic Slipform Pavers, Backhoes, Barrell Grappler Devices (All), Blacksmith, Blade Operators (All), Boat Engineer, Boat Operators (All) Bridges, Dams & Waterways, Boat Pilots requiring certification and or licensing, Boilers, Boom or Winch Cat, Boom or Winch Type Trucks, Boring Machines – Horizontal, Clamshell, Orange Peel Operator, Concrete Breaker, Concrete Curb Machine, Concrete Finish Machine or Spreader Operator, Concrete Mixer Paver, Concrete Pump Truck, Concrete Plant Operator, Concrete Wheel Saw Operators, Cranes (All) Truck/Track/Rubber, Crane (Overhead) Operator, Derrick Guy or Derrick Trucks, Dingo, Ditching Machines (All), Dozer Operators, Dragline or Shovel Operators, Dredge Booster Pump, Dredge Engineman, Dredge Operator/Leverman, Drill Cat w/Compressor Mounted, Drilling or Boring Machine Rotary - Self-Propelled, Endloaders (All) Track/Rubber Elevating, Grader, Flexplane, Forklifts/Tele-Handlers (All), Geothermal Well Drilling, GPS on machines already under the jurisdiction of Local 318, Gradeall, Greasers, Heavy Equipment Robotics Operator, Horizontal Directional Drill Locate Box Hydro Excavation Equipment, Self-Propelled or Pull Type (All), Hi-Lift, Hoists, Hoisting Engine, Horizontal Directional Drill Operator, Incinerators (Haz-Mat only), Laser Sreed, Locomotive/Operator, Marooka Buggies, Master Mechanic, Mixers 21 cu. ft. or over, Motor Patrol, Piledriver Operator, Post Driving Equipment, Pulls & Scrappers, Power Pac & Controls (Pile Driving), Pugmill, Pulverizer or Tillers, Push Cats, Quad Trac, Rotating Cab Forklifts, Rotomill, Rubber Tired Farm Tractor with Attachments over 1/2 yd., Self-Propelled Chip Spreader, Self-Propelled Roller w/Attachments, Shuttle Buggie, Sidebooms, Skidloader (Skidsteers), Skimmer Scoop, Spyder Cranes, Trackhoe and all Attachments, Trench Machine Operator, Tuggers, Ultra High-Pressure Water Jet Cutting Machine, Vacuum, Vacuum Blasting Machine Operator, Vac Jet, Welders, Well or Caisson Drills, Well Point Pumps - 2 or more, Wood Chipper w/Tractor.

OPERATING ENGINEER RIVER 2 - when working on River Work and Levee Work on the Mississippi and Ohio Rivers, Lakes and Tributaries Assistant Operators Required on: All Terrain Cherry Picker w/over 65 ton Lifting Capacity, Crane, Deckhand on all rivers, lakes, and tributaries, Dinky or Standard Locomotive, Ditching Machine (80 H.P. and over), Dragline, Dredge, Gradall, Guy Derrick, Assistant Operators or Fireman on Crane, Pile Driver, Shovel, Trenching Machine, Truck Crane

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

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Drawings, Schedules, and Details

<u>DRAWING NO.</u>	<u>TITLE</u>
	<u>GENERAL</u>
G-101	Cover Sheet
G-102	General Notes
G-103	Site Plans
	<u>DEMOLITION</u>
D-101	Unit 5 – Demolition Roof Plan and Elevations
D-102	Unit 8 – Demolition Roof Plan and Elevations
D-103	Unit 123 – Demolition Roof Plan and Elevations
	<u>ARCHITECTURAL</u>
A-101	Unit 5 – Roof Plan, Elevations, and Details
A-102	Unit 8 – Roof Plan, Elevations, and Details
A-103	Unit 123 – Roof Plan, Elevations, and Details
A-201	Unit 5 – Sections and Details
A-202	Unit 8 – Sections and Details
A-203	Unit 123 – Sections and Details
	<u>STRUCTURAL</u>
S-001	Structural Notes and Typ. Details
S-101	Plan Views and Wall Details

All drawings dated March 26, 2024.

END OF SECTION

SECTION 01 10 00

SUMMARY

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Contract description.
- B. Contractor's use of site and premises.
- C. Owner occupancy.
- D. Contractor's Duties
- E. Contract Documents

1.2 CONTRACT DESCRIPTION

- A. Work of the Project includes:
 - 1. For Base Bid, provide Roof Reconfiguration at two (2) Buildings at 405 South Combs Street, Ridgway, Illinois – Building #5 and Building #8. Work to include: New Trusses to span existing roof ridges, New Wood Sheathing as required, Wood Framing and Siding with Access Door, Additional Ceiling Insulation, New Metal Roofing and Roof Accessories, and Demolition sufficient to perform the work. Alternate No. 1 is for the same work at 123 West Wilson in Shawneetown, Illinois.
- B. Perform Work of Contract under stipulated sum contract with Owner in accordance with Conditions of Contract.

1.3 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 - 1. Owner occupancy.
 - 2. Use of site and premises by the public.
- B. Emergency Building Exits During Construction: Do not block building exits.
- C. Allow for public use of all adjoining streets and sidewalks.
- D. Light duty vehicle parking is permitted. All parking lots and sidewalks are to be restored to their original condition.

1.4 OWNER OCCUPANCY

- A. The Owner will occupy the premises during the entire period of construction.

- B. Cooperate with Owner to minimize conflict, and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.5 CONTRACTOR'S DUTIES

- A. Except as specifically noted, Contractor shall provide and pay for:
 - 1. All labor, materials, and equipment used for construction of and/or incorporated into the project.
 - 2. All tools, construction equipment and machinery.
 - 3. Required building permits, and all inspection fees by governmental authorities.
 - 4. Other facilities and services necessary for proper execution and completion of work.
- B. Owner is exempt from sales tax on product permanently incorporated in work.
 - 1. Obtain sales tax exemption certificate number from Owner.
 - 2. Place exemption certificate number on invoices for materials incorporated in work.
 - 3. Upon completion of work, file with Owner a notarized statement that all purchases made under exemption certificate were entitled to be exempt and furnish copies of invoice to Owner.
 - 4. Pay legally assessed penalties for improper use of exemption certificate number.
- C. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities which bear on performance of work.
- D. Promptly submit written notice to Architect/Engineer of observed variance of contract documents from legal requirements.
 - 1. It is not the Contractor's responsibility to make certain that drawings and specifications comply with codes and regulations.
 - a. Appropriate modifications to contract documents will account for/reflect necessary changes.
 - b. Assume responsibility for work known to be contrary to such requirements if written notice is not provided by the Contractor to the Architect.
- E. Enforce strict discipline and good order among employees.
- F. Do not unreasonably encumber site with materials or equipment.
- G. Do not load structure with weight that will endanger structure.
- H. Assume full responsibility for protection and safe-keeping of products stored on premises.
- I. Move any stored products which interfere with operations of Owner or other Contractors.
- J. Obtain and pay for use of additional storage or work areas needed for operations.

- K. Contractor shall maintain building free from entrance of water at all times during construction.
- L. Contractor shall furnish, erect, and maintain temporary ladders, ramps, or hoists as may be required for performance of his work.
 - 1. All such equipment shall be substantially designed, constructed, and maintained in accordance with applicable federal, state, and local laws, ordinances, and regulations, and shall be promptly removed when no longer needed.
- M. Contractor shall design, furnish, erect, maintain, and move all ladders and scaffolding required for this work.
 - 1. All ladders and scaffolding shall be designed, constructed, and maintained in accordance with applicable federal, state, and local law, ordinances, and regulations, and shall be promptly removed when no longer needed.

1.6 CONTRACT DOCUMENTS

- A. Contractor will be furnished free of charge four copies of drawings and specifications.
- B. On request, additional copies will be furnished to Contractor at cost of reproduction, postage, and handling.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Applications for payment.
- C. Certified Payrolls
- D. Change procedures.
- E. Defect assessment.

1.2 SCHEDULE OF VALUES

- A. Submit printed schedule on AIA Form G703 - Continuation Sheet for G702.
- B. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- C. Format: Utilize Table of Contents of this Project Manual. Identify each line item with number and title of major specification Section. Identify site mobilization, bonds and insurance.
- D. Include separately from each line item, direct proportional amount of Contractor's overhead and profit.
- E. Revise schedule to list approved Change Orders, with each Application for Payment.

1.3 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on AIA Form G702-Application and Certificate for Payment. Electronic submittal of form is acceptable in lieu of three copies.
- B. Submit three copies of each certified payroll on US Department of Labor Form WH-347, showing pay rates for all categories indicated by trade in Section 00 82 50, Prevailing Rate of Wages, for Gallatin County, Illinois. Electronic submittal of form is acceptable in lieu of three copies.
- C. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- D. Submit updated construction schedule with each Application for Payment.

- E. Payment Period: Submit applications for payment to Architect/Engineer for processing no later than 10 days prior to date established for progress payment meeting.
- F. Submit with transmittal letter as specified for Submittals in Section 013300.
- G. Submit lien waivers.
- H. Substantiating Data: When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
 - 1. Partial release of liens from major subcontractors and vendors.
 - 2. Affidavits attesting to off-site stored products.
 - 3. Construction progress schedules, revised and current.
- I. Application for Progress Payment No. 1 shall be accompanied by a notarized statement on Contractor's letterhead as follows:
 - 1. I certify that the funds requested for the accompanying Pay Request No. 1 will be used to pay all just and lawful bills against the undersigned and his subcontractors for labor, material and equipment employed in the performance of the work. I further certify that such bills will be paid no later than ten (10) calendar days from date of receipt of the Owner's disbursement.
 - 2. Execute statement with signature of a responsible officer of contracting firm.
- J. Each subsequent application for progress payment shall be accompanied by the following supporting documents:
 - 1. Partial or final waivers of lien in monetary amount from Contractor, each material supplier and/or subcontractor reflecting amounts incorporated into preceding request for progress payment.
 - 2. A notarized Affidavit of Payment to Material Suppliers and Subcontractors.
 - a. Affidavit shall be submitted in exact text as exhibit furnished by Architect/Engineers, signed by Contractor or Subcontractor.
 - b. Include unit item, actual amount of contract without overhead or profit, amount paid to date, and amount to become due (balance of account).
- K. Progress payments will be made for materials and equipment not incorporated in the work provided that:
 - 1. Such materials and equipment have been delivered to and suitable stored at site or some other location approved in writing by Owner and Architect/Engineer. All such materials stored off-site shall be marked or tagged with identification of project to which they are assigned.
 - 2. Contractor submits evidence of title to such materials and equipment.
 - 3. Care and custody of such materials and equipment and all costs incurred for movement and storage shall be responsibility of Contractor.
 - 4. Such materials and equipment are suitably insured by Contractor. Contractor shall submit a certificate of insurance showing the Owner as an additional insured and showing amount of insurance coverage of suitable proof that material and equipment are stored in a bonded warehouse.

- L. Refer to section 017000 for submittal requirements for application for final payment and related closeout procedures.

1.4 CHANGE PROCEDURES

- A. Submittals: Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. The Architect/Engineer will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions in writing.
- C. The Architect/Engineer may issue a Proposal Request including a detailed description of proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change and the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within seven days.
- D. Contractor may propose changes by submitting a request for change to Architect/Engineer, describing proposed change and its full effect on the Work. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation. Document requested substitutions in accordance with Section 016000.
- E. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order as approved by Architect/Engineer.
- F. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.
- G. Architect/Engineer may issue directive, on a **Hurst-Rosche** Change Order form signed by Owner, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.
- H. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of the Contract. Architect/Engineer will determine change allowable in Contract Sum/Price and Contract Time as provided in Contract Documents.
- I. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.

- J. Document each quotation for change in cost or time with sufficient data to allow evaluation of quotation.
- K. Execution of Change Orders: Architect/Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.
- L. Correlation Of Contractor Submittals:
 - 1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
 - 2. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
 - 3. Promptly enter changes in Project Record Documents.

1.5 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the Architect/Engineer, it is not practical to remove and replace the Work, the Architect/Engineer will direct appropriate remedy or adjust payment.
- C. Individual specification sections may modify these options or may identify specific formula or percentage sum/price reduction.
- D. Authority of Architect/Engineer and Owner to assess defects and identify payment adjustments, is final.
- E. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products not completely unloaded from transporting vehicle.
 - 4. Products placed beyond lines and levels of required Work.
 - 5. Products remaining on hand after completion of the Work.
 - 6. Loading, hauling, and disposing of rejected products.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Preconstruction meeting.
- C. Progress meetings.
- D. Cutting and patching.
- E. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.

1.3 PRECONSTRUCTION MEETING

- A. Architect/Engineer will schedule meeting after Notice of Award.
- B. Attendance Required: Owner, Architect/Engineer, and Contractor(s).
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of Subcontractors if not yet submitted, list of products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing parties in Contract, and Architect/Engineer.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling.

- D. Architect/Engineer will record minutes and distribute copies with reasonable promptness after meeting to participants, with one copy to Owner, and those affected by decisions made.

1.4 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Architect/Engineer will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required: Job superintendent, major subcontractors, Owner, and Architect/Engineer, as appropriate to agenda topics for each meeting.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of Work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems impeding planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of progress schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on progress schedule and coordination.
 - 13. Other business relating to Work.
- E. Architect/Engineer will record minutes and distribute copies with reasonable promptness after meeting to participants, with one copy to Owner, and those affected by decisions made.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.

3. Efficiency, maintenance, or safety of element.
 4. Visual qualities of sight exposed elements.
 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work, and to:
1. Fit the several parts together, to integrate with other Work.
 2. Uncover Work to install or correct ill-timed Work.
 3. Remove and replace defective and non-conforming Work.
 4. Remove samples of installed Work for testing.
 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products in accordance with requirements of Contract Documents.
- G. Maintain integrity of roof construction; completely seal voids.

3.2 SPECIAL PROCEDURES

- A. Materials: As specified in product sections.
- B. Employ skilled and experienced installer to perform alteration work.
- C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- D. Remove debris from area.
- E. Prepare surface to permit installation of new work.
- F. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- G. Remove, cut, and patch Work in manner to minimize damage to products and finishes.
- H. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- I. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect/Engineer for review.
- J. Where change of plane of 1/4 inch or more occurs, submit recommendation for providing smooth transition; to Architect/Engineer for review.

- K. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- L. Finish surfaces as specified in individual product sections.

END OF SECTION

SECTION 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. References.
- B. Quality assurance.
- C. Format.
- D. Schedules.
- E. Review and evaluation.
- F. Updating schedules.
- G. Distribution.

1.2 REFERENCES

- A. The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry, Washington, D.C., The Associated General Contractors of America (AGC).

1.3 QUALITY ASSURANCE

- A. Contractor's Administrative Personnel: Experience in using and monitoring CPM schedules on comparable projects.

1.4 FORMAT

- A. Listings: Reading from left to right, in ascending order for each activity. Identify each activity with applicable specification section number.
- B. Scale and Spacing: To allow for notations and revisions.

1.5 SCHEDULES

- A. Prepare network analysis diagrams and supporting mathematical analyses using Critical Path Method, under concepts and methods outlined in AGC's "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry".
- B. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and identify for each activity:

1. Preceding and following event numbers.
 2. Activity description.
 3. Estimated duration of activity, in maximum 15 day intervals.
 4. Earliest start date.
 5. Earliest finish date.
 6. Actual start date.
 7. Actual finish date.
 8. Latest start date.
 9. Latest finish date.
 10. Percentage of activity completed.
 11. Responsibility.
- C. Coordinate contents with schedule of values in Section 01 20 00.

1.6 REVIEW AND EVALUATION

- A. Participate in joint review and evaluation of network diagrams and analysis with Architect/Engineer at each submittal.
- B. Evaluate project status to determine work behind schedule and work ahead of schedule.
- C. After review, revise network diagrams and analysis incorporating results of review, and resubmit within 10 days.

1.7 UPDATING SCHEDULES

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update diagrams to graphically depict current status of Work.
- C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- D. Indicate changes required to maintain Date of Substantial Completion.
- E. Submit sorts required to support recommended changes.

1.8 DISTRIBUTION

- A. Following joint review, distribute copies of updated schedules to Contractor's project site file, to Subcontractors, Architect/Engineer, Owner, and other concerned parties.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed products list.
- D. Product data.
- E. Shop drawings.
- F. Samples.
- G. Certificates.
- H. Manufacturer's instructions.

1.2 SUBMITTAL PROCEDURES

- A. Transmit each submittal with shop drawing submittal form found at the end of this section. A copy of the submittal form must be attached to each copy of the submittal; if not, the submittal will be rejected and returned to the Contractor.**
- B. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- C. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- D. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- E. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
- F. Allow space on submittals for Contractor and Architect/Engineer review stamps.
- G. When revised for resubmission, identify changes made since previous submission.

- H. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- I. Submittals not requested will not be recognized or processed.

1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules within 10 days after date established in Notice to Proceed.
- B. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- C. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- D. Submit computer generated horizontal bar chart with separate line for each major portion of Work or operation, identifying first work day of each week.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of Work at each submission.
- G. Submit separate schedule of submittal dates for shop drawings, product data, and samples.
- H. Revisions To Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
 - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

1.4 PROPOSED PRODUCTS LIST

- A. Within 10 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

- A. Product Data: Submit to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.

- B. Submit number of copies Contractor requires, plus 3 copies Architect/Engineer will retain.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Submit to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Shop Drawings can be submitted electronically for review. Electronic submittal should be e-mailed to the Project Construction Manager and will be e-mailed back to the contractor once reviewed.
- D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00.

1.7 SAMPLES

- A. Samples: Submit to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Samples For Selection as Specified in Product Sections:
 - 1. Submit to Architect/Engineer for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Architect/Engineer selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit number of samples specified in individual specification sections; Architect/Engineer will retain one sample.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.

- G. Samples will not be used for testing purposes unless specifically stated in specification section.
- H. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes described in Section 01 70 00.

1.8 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Architect/Engineer, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect/Engineer.

1.9 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, installation, adjusting, and finishing, to Architect/Engineer for delivery to Owner in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION



SHOP DRAWING SUBMITTAL

PROJECT: Roof Renovations
Housing Authority Gallatin County
Shawneetown, Gallatin Co., Illinois

DATE: _____

A/E PROJECT NO: 390-1263

CONTRACTOR: _____

PRESENTED BY: _____
(Subcontractor/Supplier) Company Name

Address

Phone/Fax

Contact Person

ITEM: _____

SPEC SECTION: _____

By approving and submitting these shop drawings, product data and samples, we represent that we have determined and verified all materials, field measurements and field construction criteria related thereto, or will do so, and that we have checked and coordinated information contained within submittal with requirements of the work and contract documents.

Contractor's Signature

Date

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances
- C. References.
- D. Examination.
- E. Preparation.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.

- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Obtain copies of standards where required by product specification sections.
- C. When specified reference standards conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect/Engineer shall be altered from Contract Documents by mention or inference otherwise in reference documents.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 1. Temporary electricity.
 - 2. Temporary lighting for construction purposes.
 - 3. Temporary water service.
 - 4. Temporary sanitary facilities.
- B. Construction Facilities:
 - 1. Field offices and sheds.
 - 2. Vehicular access.
 - 3. Parking.
 - 4. Progress cleaning and waste removal.
- C. Temporary Controls:
 - 1. Barriers.
 - 2. Security.
 - 3. Noise control.

1.2 TEMPORARY ELECTRICITY

- A. Owner will pay cost of energy used. Exercise measures to conserve energy.
- B. Provide main service disconnect and over-current protection at convenient location.
- C. Permanent convenience receptacles may be utilized during construction.

1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Not applicable. Contractor to confine work to daylight hours.

1.4 TEMPORARY WATER SERVICE

- A. Owner will allow use of water by designated means. Exercise measures to conserve energy. Utilize Owner's existing water system, extend and supplement with temporary devices as needed to maintain specified conditions for construction operations.

1.5 TEMPORARY SANITARY FACILITIES

- A. Owner will allow use of designated sanitary facilities at Owner offices.

- B. At end of construction, restore existing facilities used for construction operations to same or better condition as original condition, as applicable.

1.6 FIELD OFFICES AND SHEDS

- A. Do not use existing facilities for field offices or for storage.
- B. Do not use permanent facilities for field offices or for storage.
- C. Storage Areas and Sheds: Size to storage requirements for products of individual Sections, allowing for access and orderly provision for maintenance and for inspection of products to requirements of Section 016000.
- D. Preparation: Fill and grade sites for temporary structures sloped for drainage away from buildings.
- E. Maintenance And Cleaning:
 - 1. Daily janitorial services for offices; periodic cleaning and maintenance for office and storage areas.
 - 2. Maintain approach walks free of mud, water, and snow.
- F. Removal: At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.

1.7 VEHICULAR ACCESS

- A. Location approved by Owner.
- B. Provide unimpeded access for emergency vehicles. Maintain 20 feet wide driveways with turning space between and around combustible materials.
- C. Provide and maintain access to fire hydrants and control valves free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Use designated existing on-site roads for construction traffic as designated by Owner.

1.8 PARKING

- A. When site space is not adequate, provide additional off-site parking.
- B. Do not allow heavy vehicles or construction equipment in parking areas.
- C. Do not allow vehicle parking on existing pavement.
- D. Maintenance:
 - 1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.

2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.
- E. Removal, Repair:
1. Remove temporary materials and construction.
 2. Remove underground work and compacted materials to depth of 2 feet; fill and grade site as specified.
 3. Repair existing facilities damaged by use, to original condition.
- F. Mud From Site Vehicles: Provide means of removing mud from vehicle wheels before entering streets.

1.9 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing spaces.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.10 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas to allow for Owner's use of site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by authorities having jurisdiction for public rights-of-way and for public access to existing buildings.
- C. Provide protection for plants designated to remain. Replace damaged plants.

1.11 SECURITY

- A. Security Program:
 1. Protect Work existing premises and Owner's operations from theft, vandalism, and unauthorized entry.
 2. Initiate program in coordination with Owner's existing security system at project mobilization.

- B. Entry Control:
 - 1. Restrict entrance of persons and vehicles into Project site and existing facilities.
 - 2. Allow entrance only to authorized persons with proper identification.
 - 3. Owner will control entrance of persons and vehicles related to Owner's operations.

- C. Personnel Identification:
 - 1. Provide identification badge to each person authorized to enter premises.
 - 2. Badge To Include: Personal photograph, name and assigned number, expiration date, and employer.
 - 3. Maintain list of accredited persons, submit copy to Owner on request.
 - 4. Require return of badges at expiration of their employment on the Work.

1.12 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise produced by construction operations.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Equipment electrical characteristics and components.

1.2 PRODUCTS

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- C. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.

- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- H. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

PART 2 PRODUCTS

2.1 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

- A. Wiring Terminations: Furnish terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Include lugs for terminal box.
- B. Cord and Plug: Furnish minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 70 00

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Project record documents.
- D. Operation and maintenance data.
- E. Manual for materials and finishes.
- F. Product warranties and product bonds.

1.2 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect/Engineer's review.
- B. Provide submittals to Architect/Engineer required by authorities having jurisdiction.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- D. Provide a notarized Affidavit for Final Completion in exact text as exhibit furnished by Architect/Engineer, signed by Contractor.
- E. Owner will occupy all of buildings as specified in Section 01 10 00.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean debris from roofs, gutters, downspouts, and drainage systems.
- C. Clean site; sweep paved areas, rake clean landscaped surfaces.
- D. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, Product Data, and Samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Field changes of dimension and detail.
 - 2. Details not on original Contract drawings.
- G. Submit documents to Architect/Engineer.

1.5 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 8-1/2 x 11 inch (A4) text pages, D side ring binders with durable plastic covers, three copies total.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
- C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- E. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, and Subcontractors.

2. Part 2: Operation and maintenance instructions, arranged by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Certificates.
 - c. Originals of warranties and bonds.

1.6 MANUAL FOR MATERIALS AND FINISHES

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect/Engineer will review draft and return one copy with comments.
- B. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of document sets as required prior to final submission.
- C. Submit two sets of revised final volumes in final form within 10 days after final inspection.
- D. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.
- E. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- F. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- G. Additional Requirements: As specified in individual product specification sections.
- H. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.7 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include Table of Contents and assemble in three D side ring binder with durable plastic cover.
- F. Submit prior to final Application for Payment.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 02 41 19 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. The Work of this Section Includes:

1. Demolition and removal of selected portions of exterior or interior of building or structure and site elements.
2. Removal and salvage of existing items for delivery to Owner and removal of existing items for reinstallation.

B. Related Requirements:

1. Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
2. Section 017300 "Execution" for cutting and patching procedures.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage; prepare for reuse; and reinstall where indicated.
- C. Existing to Remain: Existing items of construction that are not to be removed.

1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.4 COORDINATION

- A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

1.5 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.
 - 6. Review and finalize protection requirements.
 - 7. Review procedures for noise control and dust control.
 - 8. Review storage, protection, and accounting for items to be removed for salvage or reinstallation.

1.6 INFORMATIONAL SUBMITTALS

- A. Survey of Existing Conditions: Submit survey.
- B. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for dust control and for noise control. Indicate proposed locations and construction of barriers.
- C. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 - 2. Temporary interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- D. Warranties: Documentation indicating that existing warranties are still in effect after completion of selective demolition.

1.7 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. All residential spaces below demolition areas are occupied. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials:

1. It is not expected that hazardous materials will be encountered in the Work.
 - a. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.

E. On-site sale of removed items or materials is not permitted.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSP A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- B. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- C. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or video.
 1. Inventory and record the condition of items to be removed for salvage or reinstallation. Photograph or video conditions that might be misconstrued as damage caused by removal.
 2. Photograph or video existing conditions of adjoining construction including finish surfaces, that might be misconstrued as damage caused by selective demolition operations or removal of items for salvage or reinstallation.
 3. Provide photographic documentation by digital or physical means to Architect no more than ten (10) days prior to commencement of construction.

3.2 PREPARATION

- A. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.
- B. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition and staging areas and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
 - 5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.

3.3 UTILITY SERVICES AND BUILDING SYSTEMS

- A. Existing Services/Systems to Remain: Maintain utilities and building systems and equipment to remain and protect against damage during selective demolition operations.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower portions.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches.
 - 5. Remove decayed, rotted, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 6. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.

7. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed trafficways if required by authorities having jurisdiction.
 2. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations. Do not use water when it may damage adjacent construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Roofing: Remove no more existing roofing which exposes existing construction to remain, than can be covered in one day by new roofing or secured temporary covering, and so that building interior remains watertight and weathertight. See Section 07 61 00 "Sheet Metal Roofing" for new roofing requirements.
1. Remove existing roof shingles, underlayment, flashings, copings, and roof accessories.
 2. Remove existing roofing system down to substrate.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site.
1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

SECTION 06 10 00 – ROUGH CARPENTRY

1. GENERAL

1.1 WORK INCLUDES

- A. Base Bid:
 - 1. General Contractor to provide:
 - a. Miscellaneous framing and sheathing.
 - b. Preservative treatment of wood.
- B. Related Requirements:
 - 1. Section 06 17 53: Shop Fabricated Wood Trusses.

1.2 REFERENCE STANDARDS

- A. American National Standards Institute / American Hardboard Association:
 - 1. ANSI/AHA A135.4 - Basic Hardboard.
- B. American Wood Protection Association:
 - 1. AWWPA M4 - Standard for the Care of Preservative-Treated Wood Products.
 - 2. AWWPA U1 - Use Category System: User Specification for Treated Wood.
- C. APA - The Engineered Wood Association:
 - 1. APA - Plywood Design Specification, including supplements.
 - 2. APA AFG-01 - Adhesives for Field-Gluing Plywood to Wood Framing.
 - 3. APA PS 1 - Voluntary Product Standard - Structural Plywood.
- D. ASTM International:
 - 1. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - 2. ASTM B695 - Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
 - 3. ASTM C1177 - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
 - 4. ASTM C1280 - Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing.
 - 5. ASTM C1396 - Standard Specification for Gypsum Board.
 - 6. ASTM D2559 - Standard Specification for Adhesives for Bonded Structural Wood Products for Use Under Exterior Exposure Conditions.
 - 7. ASTM D3498 - Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems.
 - 8. ASTM D5456 - Standard Specification for Evaluation of Structural Composite Lumber Products.
 - 9. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 10. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
 - 11. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.

- E. National Lumber Grades Authority:
 - 1. NLGA - Standard Grading Rules for Canadian Lumber.
- F. Northeastern Lumber Manufacturers Association:
 - 1. NELMA - Standard Grading Rules for Northeastern Lumber.
- G. Southern Pine Inspection Bureau:
 - 1. SPIB - Standard Grading Rules for Southern Pine Lumber.
- H. U.S. Department of Commerce National Institute of Standards and Technology:
 - 1. DOC PS 1 - Structural Plywood.
 - 2. DOC PS 2 - Performance Standard for Wood-Based Structural-Use Panels.
 - 3. DOC PS 20 - American Softwood Lumber Standard.
- I. West Coast Lumber Inspection Bureau:
 - 1. WCLIB Standard 17 - Grading Rules for West Coast Lumber.
- J. Western Wood Products Association:
 - 1. WWPA - Western Lumber Grading Rules.

1.3 COORDINATION

- A. Coordinate Work of this Section with installation of shop fabricated wood trusses.

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer information on sheathing, wood preservative materials, and application instructions.
- B. Evaluation Reports: For preservative-treated wood products, from ICC-ES.

1.5 QUALITY ASSURANCE

- A. Perform Work according to:
 - 1. Lumber Grading Agency: Certified by DOC PS 20.
 - 2. Wood Structural Panel Grading Agency: Certified by APA - The Engineered Wood Association.
 - 3. Lumber: DOC PS 20.
 - 4. Wood Structural Panels: DOC PS 1 or PS 2.
- B. Surface-Burning Characteristics:
 - 1. Fire-Retardant-Treated Materials: Maximum 25/450 flame-spread/smoke-developed index when tested according to ASTM E84.
- C. Apply label from agency approved by authority having jurisdiction to identify each preservative-treated and fire-retardant-treated material.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

- B. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect wood products from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

2. PRODUCTS

2.1 MATERIALS

- A. Provide dressed lumber, S4S (surfaced on 4 sides by a machine), unless otherwise indicated on the structural and/or architectural drawings.
- B. Provide seasoned lumber No. 2, Southern Pine with 19% maximum moisture content at time of dressing unless noted otherwise on the Drawings.
- C. Lumber Grading Rules and Wood Species to be in conformance with Voluntary Product Standard DOC PS 20: Grading rules of the following associations apply to materials furnished under this section:
 - 1. Northeastern Lumber Manufacturer's Association, Inc. (NELMA).
 - 2. National Lumber Grades Authority (NLGA).
 - 3. Northern Softwood Lumber Bureau (NSLB).
 - 4. Southern Pine Inspection Bureau (SPIB).
 - 5. West Coast Lumber Inspection Bureau (WCLIB).
 - 6. West Wood Products Association (WWPA).
- D. Provide preservative treatment for members as required by this Section or if indicated as “treated” in the Structural Drawings.

2.2 FACTORY WOOD TREATMENT

- A. Preservative Treatment by Pressure Process: AWP A U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.
 - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Mark plywood with appropriate classification marking of an inspection agency acceptable to authorities having jurisdiction.
- C. Application: Treat lumber and plywood in contact with masonry or concrete or used with roofing, flashing, vapor barriers, and waterproofing.
- D. Moisture Content after Treatment:
 - 1. Lumber: Maximum 19 percent.
 - 2. Structural Panels: Maximum 15 percent.

2.3 ACCESSORIES

- A. Fasteners and Anchors:

1. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Wood Screws and Lag screws: ASME B18.2.1, ASME B18.6.1, or ICC-ES AC233
- D. Power Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- E. Specialty or Proprietary Wood Connectors:
 1. Material: Hot-dipped galvanized steel.
 2. Provide framing connectors where noted or shown in the Drawings. Connectors shall be Simpson Strong-Tie connectors, MiTEK (USP) Structural Connectors, or approved equal. All materials shall be building code approved for the type of installation indicated.

3. EXECUTION

3.1 STORAGE AND HANDLING

- A. Deliver, store, and handle all materials in such a manner to protect against damage and the weather. All manufactured products shall be protected from the weather.
- B. Use all means necessary to protect the installed work and materials of all other trades.

3.2 ERECTION AND BRACING

- A. Set structural members level and plumb, in correct position.
- B. Make provisions for erection loads, and for sufficient temporary bracing to maintain a safe, plumb, and truly align bed structure until completion of erection and installation of permanent bracing.

3.3 GENERAL

- A. Discard unit of material with defects which might impair quality of work, and units which are too small to fabricate work with minimum joints or optimum joint arrangement.
- B. Installer must examine the substrate structure and the conditions under which the carpentry work is to be installed, and notify the Contractor in writing of conditions detrimental to the work. Do not proceed with the installation until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
- C. Coordinate carpentry work to other work; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds and similar supports to allow proper attachment of other work.

- D. For treated wood cut in the field, apply one coat minimum of compatible chemical preservative to sawn end.

3.4 APPLICATION

A. Wood Blocking and Nailers:

1. 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.
2. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.
3. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.

B. Site-Applied Wood Treatment:

1. Treat Site-sawn cuts by applying preservative according to AWWPA M4.
2. Allow preservative to dry prior to erecting members.

3.5 WOOD BLOCKING AND FRAMING

- A. Provide and install wood blocking for anchoring and support of fixtures and accessories as indicated on Drawings.

3.6 PROTECTION

- A. Protect completed work from damage until project is completed and accepted.

3.7 ADJUST AND CLEAN

- A. Remove from site all rubbish, debris and packaging produced by operations and leave site in a “broomclean” condition.
- B. Adjust all working items to fit snugly yet work freely.

3.8 ROOF BLOCKING

- A. Furnish and install all wood roof blocking and nailers required by Drawings.
- B. Blocking shall be sizes and shapes indicated on details and as required by conditions encountered.

END OF SECTION

SECTION 06 16 00 - SHEATHING

1.1 SUMMARY

A. Section Includes:

1. Roof Sheathing.
2. Exterior Vertical Sheathing at new End Walls.
3. Interior Supplemental Sheathing at Walls.

B. Related Requirements:

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review air-barrier and water-resistant glass-mat gypsum sheathing requirements and installation, special details, transitions, mockups, air-leakage testing, protection, and work scheduling that covers air-barrier and water-resistant glass-mat gypsum sheathing.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Roof sheathing.
2. Interior Wall Sheathing
3. Sheathing joint-and-penetration treatment materials.

B. Product Data Submittals: 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 plywood complies with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Include physical properties of treated materials.
3. For fire-retardant treatments, include physical properties of treated plywood both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency in accordance with ASTM D5516.
4. For products receiving waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
5. For air-barrier and water-resistant glass-mat gypsum sheathing, include manufacturer's technical data and tested physical and performance properties of products.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance Ratings: As tested in accordance with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

2.2 WOOD PANEL PRODUCTS

- A. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.
- B. Factory mark panels to indicate compliance with applicable standard.

2.3 FIRE-RETARDANT-TREATED PLYWOOD

- A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article that are acceptable to authorities having jurisdiction and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
- B. Fire-Retardant-Treated Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested in accordance with ASTM E84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.
 - 1. Use treatment that does not promote corrosion of metal fasteners.
 - 2. Interior Type A: Treated materials are to have a moisture content of 28 percent or less when tested in accordance with ASTM D3201/D3201M at 92 percent relative humidity. Use where exterior type is not indicated.
 - 3. Design Value Adjustment Factors: Treated lumber plywood is to be tested in accordance with ASTM D5516 and design value adjustment factors are to be calculated in accordance with ASTM D6305. Span ratings after treatment are to be not less than span ratings specified. For roof sheathing and where high-temperature fire-retardant treatment is indicated, span ratings for temperatures up to 170 deg F are to be not less than span ratings specified.

- C. Kiln-dry material after treatment to a maximum moisture content of 15 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- D. Identify fire-retardant-treated plywood with appropriate classification marking of qualified testing agency.

2.4 ROOF SHEATHING

- A. Plywood Sheathing, Roofs: Either DOC PS 1 or DOC PS 2, sheathing.
 - 1. Span Rating: Not less than 32/16.
 - 2. Nominal Thickness: Not less than 15/32 inch.

2.5 WALL SHEATHING – EXTERIOR AND INTERIOR

- A. Plywood Sheathing: See Structural Drawings.

2.6 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 - 1. For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M of Type 304 stainless steel.
- B. Nails, Brads, and Staples: ASTM F1667.
- C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- D. Screws for Fastening Sheathing to Wood Framing: ASTM C1002.

2.7 MISCELLANEOUS MATERIALS

- A. Adhesives for Field Gluing Panels to Wood Framing: Formulation complying with ASTM D3498 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.

- B. New roof sheathing installation to begin at top edge of existing sheathing which remained in place after roof demolition. First row of sheathing should straddle existing roof trusses (24") and new roof trusses (24"). See Demolition, Architectural, and Structural Drawings. Subsequent rows of sheathing to proceed upward toward the new roof ridge.
- C. Terminate uppermost row of sheathing 1" short from peaks of new roof trusses in order to accommodate roof ridge vent.
- D. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- E. Securely attach to substrate by fastening as indicated on contract drawings.
- F. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- G. Coordinate roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- H. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- I. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.
- J. For exterior wall sheathing installation, install sheathing sheets with horizontal orientation, securing to wood stud framing with screws at 12" o.c. max. on each stud, top plate, bottom plate, or other blocking.
- K. For interior wall sheathing installation, install sheathing sheets with vertical orientation, as shown in Structural Drawings.

END OF SECTION

SECTION 06 17 53 - SHOP-FABRICATED WOOD TRUSSES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood roof trusses.

B. Related Requirements:

1. Section 060000 "Rough Carpentry".
2. Section 061600 "Sheathing".

1.2 DEFINITIONS

- A. Metal-Plate-Connected Wood Trusses: Planar structural units consisting of metal-plate-connected members fabricated from dimension lumber and cut and assembled before delivery to Project site.

1.3 ACTION SUBMITTALS

A. Shop Drawings: Show fabrication and installation details for trusses.

1. Show location, pitch, span, camber, configuration, and spacing for each type of truss required.
2. Indicate sizes, stress grades, and species of lumber.
3. Indicate locations, sizes, and materials for permanent bracing required to prevent buckling of individual truss members due to design loads.
4. Indicate type, size, material, finish, design values, orientation, and location of metal connector plates.
5. Show splice details and bearing details.

- B. Delegated-Design Submittal: All metal-plate-connected wood trusses in the project are delegated submittals to the Contractor. The trusses shall comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified Structural Engineer licensed in the State of Illinois responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For metal connector-plate manufacturer, structural engineer, and fabricator.

- B. Material Certificates: For dimension lumber specified to comply with minimum specific gravity. Indicate species and grade selected for each use and specific gravity.

1.5 QUALITY ASSURANCE

- A. Metal Connector-Plate Manufacturer Qualifications: A manufacturer that is a member of TPI and that complies with quality-control procedures in TPI 1 for manufacture of connector plates.
 - 1. Manufacturer's responsibilities include providing professional engineering services needed to assume engineering responsibility.
 - 2. Engineering Responsibility: Preparation of Shop Drawings and comprehensive engineering analysis by a qualified professional engineer.
- B. Fabricator Qualifications: Shop that participates in a recognized quality-assurance program, complies with quality-control procedures in TPI 1, and involves third-party inspection by an independent testing and inspecting agency acceptable to Owner and authorities having jurisdiction.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Handle and store trusses to comply with recommendations in SBCA BCSI, "Building Component Safety Information: Guide to Good Practice for Handling, Installing, Restraining, & Bracing Metal Plate Connected Wood Trusses."
 - 1. Store trusses flat, off the ground, and adequately supported to prevent lateral bending.
 - 2. Protect trusses from weather by covering with waterproof sheeting, securely anchored.
 - 3. Provide for air circulation around stacks and under coverings.
- B. Inspect trusses showing discoloration, corrosion, or other evidence of deterioration. Discard and replace trusses that are damaged or defective.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified Structural Engineer licensed in the State of Illinois to design metal-plate-connected wood trusses.
- B. Structural Performance: Metal-plate-connected wood trusses shall be capable of withstanding design loads within limits and under conditions indicated. Comply with requirements in TPI 1 unless more stringent requirements are specified below.
 - 1. Design Loads:
 - a. Dead Load – 8psf on top chords, 8psf on bottom.
 - b. Roof Live Load – 20pf (reducible as allowed by building code)
 - c. Snow Load – 12psf (not reducible)
 - d. Wind Load – See Contract Drawings for specifics.

2. Maximum Deflection under Design Loads:

- a. Roof Trusses: Vertical deflection of 1/240 of span for live, snow, or wind loads.
- b. Roof Trusses: Vertical deflection of 1/180 of span for dead plus live, dead plus snow, or dead plus wind.

C. Comply with applicable requirements and recommendations of TPI 1, TPI DSB, and SBCA BCSI.

D. Wood Structural Design Standard: Comply with applicable requirements in AF&PA's "National Design Specifications for Wood Construction" and its "Supplement."

2.2 DIMENSION LUMBER

A. Lumber: DOC PS 20 and applicable rules of any rules-writing agency certified by the American Lumber Standard Committee (ALSC) Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

- 1. Factory mark each piece of lumber with grade stamp of grading agency.
- 2. For exposed lumber indicated to receive a stained or natural finish, omit grade stamp and provide certificates of grade compliance issued by grading agency.
- 3. Provide dressed lumber, S4S.
- 4. Provide dry lumber with 15 percent maximum moisture content at time of dressing.

B. Minimum Chord Size for Roof Trusses: 2 by 4 inches nominal for both top and bottom chords.

C. Minimum Specific Gravity for Top Chords: 0.49.

D. Permanent Bracing: Provide wood bracing that complies with requirements for miscellaneous lumber in Section 061000 "Rough Carpentry".

E. Truss Bridging: Type, size, and spacing as recommended by truss manufacturer/fabricator.

2.3 METAL CONNECTOR PLATES

A. General: Fabricate connector plates to comply with TPI 1.

B. Hot-Dip Galvanized-Steel Sheet: ASTM A 653; Structural Steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G60 coating designation; and not less than 0.036 inch thick.

- 1. Use for interior locations unless otherwise indicated.

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. Provide fasteners for use with metal framing anchors that comply with written recommendations of metal framing manufacturer.
- B. Nails, Brads, and Staples: ASTM F 1667.

2.5 METAL FRAMING ANCHORS AND ACCESSORIES

- A. Allowable design loads, as published by manufacturer, shall comply with or exceed those of basis-of-design products. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency. Framing anchors shall be punched for fasteners adequate to withstand same loads as framing anchors.
- B. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653, G60 coating designation.
 1. Use for interior locations unless otherwise indicated.
- C. Truss Tie-Downs (Hurricane or Seismic Ties): Bent strap tie for fastening roof trusses to wall studs below.
- D. Roof Truss Bracing/Spacers: U-shaped channels, 1-1/2 inches wide by 1 inch deep by 0.040 inch thick, made to fit between two adjacent trusses and accurately space them apart, and with tabs having metal teeth for fastening to trusses.

2.6 MISCELLANEOUS MATERIALS

- A. Galvanizing Repair Paint: SSPC-Paint 20, with dry film containing a minimum of 92 percent zinc dust by weight.

2.7 FABRICATION

- A. Cut truss members to accurate lengths, angles, and sizes to produce close-fitting joints.
- B. Fabricate metal connector plates to sizes, configurations, thicknesses, and anchorage details required to withstand design loads for types of joint designs indicated.
- C. Assemble truss members in design configuration indicated; use jigs or other means to ensure uniformity and accuracy of assembly, with joints closely fitted to comply with tolerances in TPI 1. Position members to produce design camber indicated.
 1. Fabricate wood trusses within manufacturing tolerances in TPI 1.
- D. Connect truss members by metal connector plates located and securely embedded simultaneously in both sides of wood members by air or hydraulic press.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install wood trusses only after supporting construction is in place and is braced and secured.
- B. If trusses are delivered to Project site in more than one piece, assemble trusses before installing.
- C. Hoist trusses in place by lifting equipment suited to sizes and types of trusses required, exercising care not to damage truss members or joints by out-of-plane bending or other causes.
- D. Install and brace trusses according to TPI recommendations and as indicated.
- E. Install trusses plumb, square, and true to line and securely fasten to supporting construction.
- F. Space trusses 24 inches on center. Adjust and align trusses in location before permanently fastening.
- G. Anchor trusses securely at bearing points; use metal truss tie-downs as applicable. Install fasteners through each fastener hole in metal framing anchors according to manufacturer's fastening schedules and written instructions.
- H. Install and fasten permanent bracing during truss erection and before construction loads are applied. Anchor ends of permanent bracing where terminating at walls or beams.
 - 1. Install bracing to comply with Section 061000 "Rough Carpentry."
- I. Install wood trusses within installation tolerances in TPI 1.
- J. Do not alter trusses in field. Do not cut, drill, notch, or remove truss members.
- K. Replace wood trusses that are damaged or do not comply with requirements.
 - 1. Damaged trusses may be repaired according to truss repair details signed and sealed by the Professional Engineer licensed in the State of Illinois responsible for truss design.

3.2 REPAIRS AND PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect wood trusses from weather. If, despite protection, wood trusses become wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- C. Repair damaged galvanized coatings according to manufacturer's written instructions.

END OF SECTION

SECTION 07 21 00 - THERMAL INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Glass-fiber blanket insulation.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Installer's Certification: Listing type, manufacturer, and R-value of insulation installed in each element of the building thermal envelope.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: Maximum flame-spread and smoke-developed indexes less than Class C, 200 and 450 when tested in accordance with ASTM E84.

1. Indicate design designations from UL's "Fire Resistance Directory" or from listings of another qualified testing agency.

B. Labeling: Provide identification of mark indicating R-value of each piece of insulation 12 inches and wider in width.

C. Thermal-Resistance Value (R-Value): R-value as indicated on Drawings in accordance with ASTM C518.

2.2 GLASS-FIBER BLANKET INSULATION

- A. Glass-Fiber Blanket Insulation, Unfaced: ASTM C665, Type I; passing ASTM E136 for combustion characteristics.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrates of substances that are harmful to insulation, including removing projections capable of puncturing insulation or vapor retarders, or those that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products, applications and applicable codes.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
- C. Install insulation with manufacturer's R-value label exposed after insulation is installed.
- D. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- E. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

3.3 INSTALLATION OF INSULATION IN FRAMED CONSTRUCTION

- A. Blanket Insulation: Install in cavities formed by framing members in accordance with the following requirements:
 - 1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
 - 2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
 - 3. Attics: Install eave ventilation troughs between roof framing members in insulated attic spaces at vented eaves.
 - 4. For wood-framed construction, install blankets in accordance with ASTM C1320 and as follows:
 - a. Lay insulation blankets flat on top of existing insulation throughout attic space.
- B. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation using the following materials:

1. Glass-Fiber Insulation: Compact to approximately 40 percent of normal maximum volume equaling a density of approximately 2.5 lb/cu. ft.
2. Detailing Foam Insulation for Voids: Apply in accordance with manufacturer's written instructions.

3.4 PROTECTION

- A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes.
- B. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION

SECTION 07 25 00 - WEATHER BARRIERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Building wrap.

1.2 ACTION SUBMITTALS

A. Product Data:

1. For each type of product.

B. Product Data Submittals: For building wrap, include data on air and water-vapor permeance based on testing in accordance with referenced standards.

C. Shop Drawings: Show details of building paper at terminations, openings, and penetrations. Show details of flexible flashing applications.

1.3 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For water-resistive barrier from ICC-ES.

1.4 QUALITY ASSURANCE

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

1.5 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.

1.6 FIELD CONDITIONS

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

1.7 WARRANTY

- A. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 WEATHER BARRIERS

- A. Building Wrap: Flame-spread and smoke-developed indexes of less than 25 and 450, respectively, when tested in accordance with ASTM E84; UV stabilized; and acceptable to authorities having jurisdiction.
 - 1. Building Wrap Type: Type II, ASTM E2556/E2556M.
 - 2. Composition Type: Nonperforated, nonwoven polyolefin.
 - 3. Allowable UV Exposure Time: Not more than 120 days.

2.2 ACCESSORY MATERIALS

- A. Requirement: Provide primers, fasteners, seam tapes, flashing, transition strips, termination strips, joint sealants, counterflashing strips, flashing sheets and metal termination bars, termination mastic, substrate patching materials, adhesives, tapes, foam sealants, lap sealants, and other accessory materials that are recommended in writing by weather barrier manufacturer to produce a complete weather barrier assembly and that are compatible with primary weather barrier material and adjacent construction to which they may seal.

PART 3 - EXECUTION

3.1 INSTALLATION OF WEATHER BARRIERS

- A. Weather Barriers:
 - 1. Building Wrap: Comply with manufacturer's written instructions and warranty requirements.
- B. Install weather barrier accessories for a complete installation with weather barriers in accordance with manufacturers written instructions.

END OF SECTION

SECTION 07 46 33 - PLASTIC SIDING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Vinyl siding.
2. Vinyl soffit.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood furring, grounds, nailers, and blocking.
2. Section 072500 "Weather Barriers" for weather-resistive barriers.

1.2 COORDINATION

- ##### A. Coordinate siding installation with flashings and other adjoining construction to ensure proper sequencing.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Vinyl siding.
2. Vinyl soffit.

B. Product Data Submittals:

1. For each type of vinyl siding and soffit. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
2. For vinyl siding, include VSI's official certification logo printed on Product Data.

C. Samples for Initial Selection: For vinyl siding and soffit including related accessories.

D. Samples for Verification: For each type, color, texture, and pattern required.

1. 12-inch-long-by-actual-width Sample of siding.
2. 12-inch-long-by-actual-width Sample of soffit.
3. 12-inch-long-by-actual-width Samples of trim and accessories.

1.4 INFORMATIONAL SUBMITTALS

- ##### A. Qualification Data: For vinyl siding Installer.

- B. Product Certificates: For each type of vinyl siding and soffit.
- C. Research/Evaluation Reports: For each type of vinyl siding required, from ICC-ES.
- D. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of product, including related accessories, to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish full lengths of vinyl siding and soffit including related accessories, in a quantity equal to 20 percent for siding and 5 percent for soffit of amount installed.

1.7 QUALITY ASSURANCE

- A. Vinyl Siding Installer Qualifications: A qualified installer who employs a VSI-certified Installer on Project.
- B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and to set quality standards for fabrication and installation.
 - 1. Build mockup of typical wall area as shown on Drawings.
 - 2. Build mockups for vinyl siding and soffit including accessories.
 - a. Size: One end-wall at one building.
 - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with labels intact until time of use.
- B. Store materials under cover.

1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace products that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
 - a. Structural failures including cracking, fading, and deforming.
 - b. Deterioration of materials beyond normal weathering.
2. Fading is defined as loss of color, after cleaning with product recommended by manufacturer, of more than 4 Hunter color-difference units as measured in accordance with ASTM D2244.
3. Warranty Period: 25 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Obtain products, including related accessories, from single source from single manufacturer.

2.2 VINYL SIDING

- A. Vinyl Siding: Integrally colored product complying with ASTM D3679.
- B. Vinyl Siding Certification Program: Provide products that are listed in VSI's list of certified products.
- C. Horizontal Pattern:
 1. 9-inch exposure in plain, double, 4-1/2-inch board style.
- D. Texture: Smooth.
- E. Nominal Thickness: 0.044 inch.
- F. Minimum Profile Depth (Butt Thickness): 1/2 inch.
- G. Nailing Hem: Double thickness.
 1. Colors: As selected by Architect from manufacturer's full range of colors.

2.3 VINYL SOFFIT

- A. Vinyl Soffit: Integrally colored product complying with ASTM D4477.
- B. Vinyl Siding Certification Program: Provide products that are listed in VSI's list of certified products.
- C. Pattern:
 1. 12-inch exposure in V-grooved, triple, 4-inch board style.

- D. Texture: Smooth.
- E. Ventilation: Provide perforated soffit.
- F. Nominal Thickness: 0.044 inch.
- G. Minimum Profile Depth: 1/2 inch.
- H. Colors: As selected by Architect from manufacturer's full range of colors.

2.4 ACCESSORIES

- A. Siding Accessories, General: Provide starter strips, edge trim, outside and inside corner caps, and other items as recommended by siding manufacturer for building configuration.
 - 1. Provide accessories made from same material as, and matching color and texture of adjacent siding unless otherwise indicated.
- B. Vinyl Accessories: Integrally colored vinyl accessories complying with ASTM D3679 except for wind-load resistance.
 - 1. Texture: Smooth.
- C. Decorative Accessories: Provide the following vinyl decorative accessories as indicated:
 - 1. Moldings and trim.
- D. Colors for Decorative Accessories: Match adjacent siding.
- E. Flashing: Provide aluminum flashing complying with Section 076200 "Sheet Metal Flashing and Trim" at window and door heads and where indicated. Color to match siding color.
- F. Fasteners:
 - 1. For fastening to wood, use ribbed bugle-head screws of sufficient length to penetrate a minimum of 1 inch into substrate.
 - 2. For fastening vinyl, use stainless steel fasteners. Where fasteners are exposed to view, use prefinished aluminum fasteners in color to match item being fastened.
- G. Insect Screening for Soffit Vents: PVC-coated, glass-fiber fabric, 18-by-16 mesh.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of vinyl siding and soffit and related accessories.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
 - 1. Center nails in elongated nailing slots without binding siding to allow for thermal movement.
- B. Install vinyl siding and soffit and related accessories in accordance with ASTM D4756.
 - 1. Install fasteners for horizontal vinyl siding no more than 16 inches o.c.
- C. Install joint sealants as specified in Section 079200 "Joint Sealants" and to produce a weathertight installation.

3.4 ADJUSTING AND CLEANING

- A. Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.
- B. Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

END OF SECTION

SECTION 076100 - SHEET METAL ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metallic-coated steel sheet.
2. Ridge vent.
3. Underlayment materials.
4. Fasteners.
5. Sealant tape.
6. Elastomeric sealant.
7. Butyl sealant.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood battens required for batten-seam sheet metal roofing if not specified in this Section.
2. Section 076200 "Sheet Metal Flashing and Trim" for gutters, downspouts, fasciae, and flashings that are not part of sheet metal roofing.
3. Section 077253 "Snow Guards" for prefabricated devices designed to hold snow on the roof surface, allowing it to melt and drain off slowly.
4. Section 079200 "Joint Sealants" for field-applied sealants adjoining sheet metal roofing and not otherwise specified in this Section.

1.2 COORDINATION

- A. Coordinate sheet metal roofing layout and seams with sizes and locations of roof curbs, equipment supports, equipment provided, and roof penetrations.
- B. Coordinate sheet metal roofing installation with rain drainage work, flashing, trim, and construction of roofing substrate, parapets, walls, and other adjoining work to provide leakproof, secure, and noncorrosive installation.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project Site.

1. Review construction schedule. Verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Review structural loading limitations of substrates during and after roofing installation.
3. Review insulation, air barrier, vapor retarder, and underlayment requirements.
4. Review flashings, special roofing details, roof drainage, roof penetrations, and condition of other construction that affect sheet metal roofing.
5. Review requirements for insurance and certificates if applicable.

6. Review roof observation and repair procedures after sheet metal roofing installation.

1.4 ACTION SUBMITTALS

A. Product Data:

1. Metallic-coated steel sheet.
2. Underlayment materials
3. Fasteners.
4. Sealant tape.
5. Elastomeric sealant.
6. Butyl sealant.

B. Shop Drawings:

1. Include plans, elevations, sections, and attachment details.
2. Detail fabrication and panel installation layouts, expansion joint locations, points of fixity, and keyed details. Distinguish between shop- and field-assembled Work.
3. Include details for forming, including seams and dimensions.
4. Include details for joining and securing, including layout and spacing of fasteners, cleats, and other attachments. Include pattern of seams.
5. Include details of expansion joints, including showing direction of expansion and contraction from points of fixity.
6. Include details of roof penetrations.
7. Include details of edge conditions, including eaves, ridges, valleys, rakes, crickets, corners, flashings, and counterflashings.
8. Include details of special conditions.
9. Include details of connections to adjoining work.

C. Samples: For each exposed product and for each color and texture specified, 12 inches long by actual width.

D. Samples for Initial Selection: For each type of sheet metal with factory-applied finishes.

1. Include Samples of trim and accessories involving finish or color selection.

E. Samples for Verification: For each type of exposed finish.

1. Sheet Metal Roofing: 12 inches long by actual width of unit, including finished seam and in required profile. Include fasteners, cleats, and other attachments.
2. Trim and Metal Closures: 12 inches long and in required profile. Include fasteners and other exposed accessories.
3. Other Accessories: 12-inch-long Samples for each type of other accessory.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Roof plans, drawn to scale, on which the following items are indicated and coordinated with each other, using input from installers of the items involved:

1. Sheet metal roofing, seam locations, and attachments.
2. Snow guards.
3. Details for penetrations.

B. Qualification Data: For Installer and Fabricator.

1. Include listing of completed projects of comparable scale of this Project, including name, address, telephone, and contact person for Architect, and name, address, telephone number, and contact person for building Owner.

C. Evaluation Reports: For self-adhering, high-temperature sheet underlayment, from ICC-ES.

D. Sample Warranties: For special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing sheet metals and accessories to include in maintenance manuals.

B. Special warranties.

1.7 QUALITY ASSURANCE

A. Sheet Metal Roofing Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal roofing similar to that required for this Project and whose products have a record of successful in-service performance.

B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.

1. Build mockup of typical roof area and eave as indicated on Drawings, including, underlayment, attachments, and accessories.
 - a. Size: Approximately 12 feet square.
 - b. Include each type of exposed seam and seam termination, fascia, soffit, and gable end and rake.
2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Do not store sheet metal roofing materials in contact with other materials that might cause staining, denting, or other surface damage.

1. Store sheet metal roofing materials away from uncured concrete and masonry.

2. Protect stored sheet metal roofing materials from contact with water.
- B. Protect strippable protective covering on sheet metal roofing from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal roofing installation.

1.9 WARRANTY

- A. Special Warranty: Warranty form at end of this Section in which Installer agrees to repair or replace components of sheet metal roofing that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
 - a. Structural failures, including, but not limited to, rupturing, cracking, or puncturing.
 - b. Wrinkling or buckling.
 - c. Loose parts.
 - d. Failure to remain weathertight, including uncontrolled water leakage.
 - e. Deterioration of metals, metal finishes, and other materials beyond normal weathering, including nonuniformity of color or finish.
 - f. Galvanic action between sheet metal roofing and dissimilar materials.
 2. Warranty Period: Five years from date of Substantial Completion.
- B. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal roofing that shows evidence of deterioration of factory-applied finishes within specified warranty period.
1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
 - b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 2. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Sheet metal roofing system, including, but not limited to, metal roof panels, cleats, anchors and fasteners, sheet metal flashing integral with sheet metal roofing, fascia panels, trim, underlayment, and accessories, is to comply with requirements without failure due to defective manufacture, fabrication, or installation, or due to other defects in construction. Sheet metal roofing is to remain watertight.
- B. Sheet Metal Roofing Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or indicated on Drawings.

- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects.
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 ROOFING SHEET METALS

- A. Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet in accordance with ASTM A653, G90 coating designation or aluminum-zinc alloy-coated steel sheet in accordance with ASTM A792, Class AZ50 coating designation, Grade 40; with smooth, flat surface; pre-painted by coil-coating process to comply with ASTM A755.
 - 1. Basis-of-Design: Pac-150 180-Degree Seam by Pac-Clad, 24 gauge steel, 16” seam spacing, 1-1/2” high seam with Pencil Ribs. Approved Equal is acceptable.
 - 2. Thickness: Nominal 0.028 inch unless otherwise indicated.
 - 3. Exposed Coil-Coated Finish:
 - a. Mica Fluoropolymer: AAMA 621. Two-coat fluoropolymer finish with suspended mica flakes containing not less than 70 percent polyvinylidene fluoride (PVDF) resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 4. Color: As selected by Architect from manufacturer's full range.
 - 5. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester-backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.

2.3 RIDGE VENT

- A. Provide a ridge vent at the new high ridge for each roof, running full length of ridge between inside faces of end walls. Integral system with roofing and of material matching roof metal. Provide clips to secure and inhibit wind-driven moisture infiltration. Provide insect screens which allow ventilation.

2.4 UNDERLAYMENT MATERIALS

- A. Self-Adhering, High-Temperature Sheet Underlayment: Minimum 40 mils thick, consisting of a slip-resistant embossed polyethylene- or polypropylene-film top surface laminated to a layer of butyl- or SBS-modified asphalt adhesive, with release-paper backing; specifically designed to withstand high metal temperatures beneath metal roofing. Provide primer in accordance with written recommendations of underlayment manufacturer.
 - 1. Basis-of-Design: Grace Ice & Water Shield HT Self-Adhering Roofing Underlayment, for Metal Roof Assemblies. Approved Equal is acceptable.

2. Thermal Stability: ASTM D1970/D1970M; stable after testing at 260 deg F or higher.
3. Low-Temperature Flexibility: ASTM D1970/D1970M; passes after testing at minus 20 deg F or lower.

2.5 MISCELLANEOUS MATERIALS

- A. Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete roofing system and as recommended by primary sheet metal manufacturer unless otherwise indicated.
- B. Fasteners: Wood screws, annular-threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.
 1. General:
 - a. Exposed Fasteners: Heads matching color of sheet metal roofing, using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of roofing.
 - b. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed; with hex-washer head.
 - c. Blind Fasteners: High-strength stainless steel rivets suitable for metal being fastened.
 2. Fasteners for Zinc-Coated (Galvanized) or Aluminum-Zinc Alloy-Coated Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel in accordance with ASTM A153/A153M or ASTM F2329/F2329M.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- D. Elastomeric Sealant: ASTM C920, per manufacturer's recommendation, use elastomeric, polyurethane, polysulfide, or silicone polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal roofing and remain watertight.
- E. Butyl Sealant: ASTM C1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

2.6 ACCESSORIES

- A. Sheet Metal Accessories: Provide components required for complete sheet metal roofing assembly, including trim, fasciae, corner units, clips, flashings, sealants, gaskets, fillers, metal closures, closure strips, and similar items. Match material and finish of sheet metal roofing unless otherwise indicated.
 1. Cleats: Intermittent and continuous attachment devices for mechanically seaming into joints and formed from the following materials and thicknesses unless otherwise indicated:

- a. Metallic-Coated Steel or Aluminum Roofing: 0.0250-inch-thick stainless steel.
 2. Expansion-Type Cleats: Cleats of a design that allows longitudinal movement of roof panels without stressing panel seams; of same material as other cleats.
 3. Backing Plates: Plates at roofing splices, fabricated from material recommended by SMACNA's "Architectural Sheet Metal Manual."
 4. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin foam or closed-cell laminated polyethylene; minimum 1-inch-thick, flexible-closure strips; cut or premolded to match sheet metal roofing profile. Provide closure strips where necessary to ensure weathertight construction.
 5. Flashing and Trim: Formed from same material and with same finish as sheet metal roofing, minimum 0.018 inch thick.
- B. Pipe Flashing: Premolded, EPDM pipe collar with flexible aluminum ring bonded to base.

2.7 FABRICATION

- A. Standing-Seam Sheet Metal Roofing: Form standing-seam panels with minimum finished seam height of 1-1/2 inches.
- B. Fabrication Tolerances: Fabricate sheet metal roofing that is capable of installation to tolerances specified in MCA's "Metal Roof Installation Manual."
- C. Form exposed sheet metal work to fit substrates with little oil canning; free of buckling and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 1. Lay out sheet metal roofing, so transverse seams, if required, are made in direction of flow, with higher panels overlapping lower panels.
 2. Offset transverse seams from each other 12 inches minimum.
 3. Fold and cleat eaves and transverse seams in shop.
 4. Form and fabricate sheets, seams, strips, cleats, valleys, ridges, edge treatments, integral flashings, and other components of metal roofing to profiles, patterns, and drainage arrangements indicated on Drawings and as required for leakproof construction.
- D. Expansion Provisions: Fabricate sheet metal roofing to allow for expansion in running work sufficient to prevent leakage, damage, and deterioration of the Work.
 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- E. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant in accordance with SMACNA's "Architectural Sheet Metal Manual."
- F. Sheet Metal Accessories: Custom fabricate flashings and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item required. Obtain field measurements for accurate fit before shop fabrication.

1. Form exposed sheet metal accessories without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
2. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.
3. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate elastomeric sealant.
4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces of accessories exposed to view.
5. Fabricate cleats and attachment devices of sizes recommended by SMACNA's "Architectural Sheet Metal Manual" for application, but not less than thickness of metal being secured.
6. Fabricate ridge vent as integral part of standing seam roofing system.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
 1. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking, that tops of fasteners are flush with surface, and that installation is within flatness tolerances required for finished roofing installation.
 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored, and that provision has been made for drainage, flashings, and penetrations through sheet metal roofing.
 3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Examine roughing-in for components and systems penetrating sheet metal roofing to verify actual locations of penetrations relative to seam locations of sheet metal roofing before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION OF UNDERLAYMENT

- A. Self-Adhering High-Temperature Sheet Underlayment:
 1. Install self-adhering high-temperature sheet underlayment, wrinkle free.
 2. Prime substrate if recommended by underlayment manufacturer.
 3. Comply with temperature restrictions of underlayment manufacturer for installation; use primer for installing underlayment at low temperatures.
 4. Apply in shingle fashion to shed water, with end laps of not less than 6 inches staggered 24 inches between courses.
 5. Overlap side edges not less than 3-1/2 inches.

6. Roll laps and edges with roller.
7. Cover underlayment within 14 days of installation.
8. Install self-adhering high-temperature underlayment at the following locations:
 - a. Over entire roof.

- B. Install flashings to cover underlayment in accordance with requirements in Section 076200 "Sheet Metal Flashing and Trim."

3.3 INSTALLATION, GENERAL

- A. Install sheet metal roofing to comply with details shown and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to installation characteristics required unless otherwise indicated on Drawings.
 1. Install fasteners, protective coatings, separators, sealants, and other miscellaneous items as required for complete roofing system.
 2. Install sheet metal roofing true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of sealant.
 3. Anchor sheet metal roofing and other components of the Work securely in place, with provisions for thermal and structural movement.
 4. Do not field cut sheet metal roofing by torch.
 5. Provide metal closures at peaks, rake edges, rake walls, eaves, and each side of ridge and hip caps.
 6. Flash and seal sheet metal roofing with closure strips at eaves, rakes, and perimeter of all openings. Fasten with self-tapping screws.
 7. Locate and space fastenings in uniform vertical and horizontal alignment. Predrill panels for fasteners.
 8. Install ridge and hip caps, and ridge vents, as sheet metal roofing work proceeds.
 9. Lap metal flashing over sheet metal roofing to direct moisture to run over and off roofing.
 10. Do not use graphite pencils to mark metal surfaces.
- B. Thermal Movement: Rigidly fasten metal roof panels to structure at only one location for each panel.
 1. Allow remainder of panel to move freely for thermal expansion and contraction.
 2. Point of Fixity: Fasten each panel along a single common line of fixing located at eave.
 3. Avoid attaching accessories through roof panels in manner that inhibits thermal movement.
- C. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches (32 mm) for nails and not less than 3/4 inch (19 mm) for wood screws.
- D. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- E. Fasciae:

1. Align bottom of sheet metal roofing and fasten with blind rivets, bolts, or self-tapping screws.
2. Flash and seal sheet metal roofing with closure strips where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

3.4 INSTALLATION OF CUSTOM-FABRICATED SHEET METAL ROOFING

A. Install sheet metal roofing system with lines and corners of exposed units true and accurate.

1. Form exposed faces flat and free of buckles, excessive waves, and avoidable tool marks, considering metal temper and reflectivity.
2. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
3. Fold back sheet metal to form hem on concealed side of exposed edges unless otherwise indicated.

B. Install cleats to hold sheet metal roofing panels in position.

1. Attach each cleat with at least two fasteners to prevent rotation.
2. Space cleats not more than 12 inches o.c.
3. Bend tabs over fastener head.
4. Provide expansion-type cleats for roof panels that exceed 30 feet in length.

C. Seal joints as required for watertight construction. For roofing with 3:12 slopes or less, use cleats at transverse seams.

1. Use sealant-filled joints unless otherwise indicated.
 - a. Embed hooked flanges of joint members not less than 1 inch into sealant.
 - b. Form joints to completely conceal sealant.
 - c. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way.
 - d. Adjust setting proportionately for installation at higher ambient temperatures.
 - e. Do not install sealant-type joints at temperatures below 40 deg F.
2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

D. Standing-Seam Roofing:

1. Attach standing-seam metal panels to substrate with double-fastened cleats spaced at 12 inches o.c.
2. Install panels reaching from eave to ridge before moving to adjacent panels.
 - a. Where transverse joints are required, stagger joints in adjacent panels not less than 48 inches.
3. Before panels are interlocked, apply continuous bead of sealant to top of flange of lower panel.
4. Lock standing seams by folding over twice, so cleat and panel edges are completely engaged.

5. Lock each panel to panel below with sealed transverse seam.
6. Loose-lock panels at eave edges to continuous edge flashing exposed 24 inches from roof edge.
 - a. Attach edge flashing to face of roof edge with continuous cleat fastened to roof substrate at 12-inch o.c. spacing.
 - b. Lock panels to edge flashing.
7. Fold over seams after locking at ridges and hips.

3.5 INSTALLATION OF ACCESSORIES

- A. Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion.
 1. Coordinate installation with flashings and other components.
 2. Install components required for complete sheet metal roofing assembly, including trim, seam covers, flashings, sealants, gaskets, fillers, metal closures, closure strips, and similar items.
 3. Install accessories integral to sheet metal roofing that are specified in Section 076200 "Sheet Metal Flashing and Trim" to comply with that Section's requirements.
- B. Flashing and Trim: Comply with performance requirements and SMACNA's "Architectural Sheet Metal Manual."
 1. Provide concealed fasteners where possible, and install units true to line, levels, and slopes.
 2. Install work with laps, joints, and seams that are permanently watertight and weather resistant.
 3. Install flashing and trim as required to seal against weather and to provide finished appearance, including, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers.
 4. Install continuous strip of self-adhering underlayment at edge of continuous flashing overlapping self-adhering underlayment, where "continuous seal strip" is indicated in SMACNA's "Architectural Sheet Metal Manual" and on Drawings.
 5. Install exposed flashing and trim without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 6. Install sheet metal flashing and trim to fit substrates, and to result in waterproof and weather-resistant performance.
 7. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.
 - a. Space expansion joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
 - b. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, and filled with butyl sealant concealed within joints.
- C. Pipe Flashing: Form flashing around pipe penetration and sheet metal roofing. Fasten and seal to sheet metal roofing as recommended in SMACNA's "Architectural Sheet Metal Manual."

3.6 INSTALLATION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal roofing within installed tolerances specified in MCA's "Metal Roof Installation Manual."

3.7 CLEANING

- A. On completion of sheet metal roofing installation, clean finished surfaces as recommended by sheet metal roofing manufacturer.
- B. Clean off excess sealants.

3.8 PROTECTION

- A. Remove temporary protective coverings and strippable films as sheet metal roofing is installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Prohibit traffic of any kind on installed sheet metal roofing.
- C. Maintain sheet metal roofing in clean condition during construction.
- D. Replace sheet metal roofing components that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures, as determined by Architect.

3.9 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ (Name) of _____ (Address), herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
 - 1. Owner: Housing Authority Gallatin County.
 - 2. Owner's Address: 117 West Wilson, Shawneetown, IL 62984.
 - 3. Building Name/Type: (1) Building #5 Ridgway, (2) Building #8 Ridgway, (3 – by Alternate #1) 123 West Wilson, Shawneetown. All multi-unit residential.
 - 4. Building's Address: (1 & 2) 405 South Combs Street, Ridgway, IL 62979, (3 – by Alternate #1) 123 West Wilson, Shawneetown, IL 62984.
 - 5. Area of Work: _____.
 - 6. Acceptance Date: _____.
 - 7. Warranty Period: _____.
 - 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period Roofing Installer will, at Roofing Installer's own cost and expense, make or cause to be made such repairs to or replacements of said work as are

necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

D. This Warranty is made subject to the following terms and conditions:

1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. Lightning;
 - b. Peak gust wind speed exceeding 106 mph;
 - c. Fire;
 - d. Failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. Faulty construction of parapet walls, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. Vapor condensation on bottom of roofing; and
 - g. Activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION

SECTION 07 62 00 - SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes gutters and downspouts, and fabricated sheet metal items.
- B. Related Sections:
 - 1. Section 07 61 00 – Sheet Metal Roofing.

1.2 REFERENCES

- A. American Architectural Manufacturers Association:
 - 1. AAMA 2604 - Voluntary specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 2. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- B. ASTM International:
 - 1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - 2. ASTM A924/A924M - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
 - 3. ASTM B32 - Standard Specification for Solder Metal.
 - 4. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
 - 5. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
 - 6. ASTM D4397 - Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.
 - 7. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- C. Federal Specification Unit:
 - 1. FS TT-C-494 - Coating Compound, Bituminous, Solvent Type, Acid Resistant.
- D. Sheet Metal and Air Conditioning Contractors:
 - 1. SMACNA - Architectural Sheet Metal Manual.

1.3 DESIGN REQUIREMENTS

- A. Gutter and Downspout Components: Conform to SMACNA Manual for sizing components for rainfall intensity determined by storm occurrence of 1 in 10 years.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Product Data: Submit data on manufactured components metal types, finishes, and characteristics.

1.5 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in sheet metal work with minimum five years experience.

1.6 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.
- B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials causing discoloration or staining.

1.8 COORDINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

PART 2 PRODUCTS

2.1 SHEET METAL FLASHING, TRIM, GUTTERS AND DOWNSPOUTS

- A. Materials:
 - 1. Galvalume:
 - a. Aluminized Steel: Type 2, base metal is steel tested in accordance with ASTM-A-446 to meet or exceed a minimum yield point of 48,000 pounds per square inch. Coated by the continuous hot-dip method uniformly on both sides with commercially pure aluminum. The coating shall be saturated with iron but contains no silicon. Minimum weight of coating, by triple-spot test is 0.60 ounce determined in accordance with Military Specification MIL-S-4174-A.
 - b. Downspouts, shall be 24 gauge. Gutters shall be shall be 22 gauge. Non-embossed steel with cold-formed configuration.

- c. Finish: Factory applied 2 coat oven cured Fluoropon coating with minimum 70 percent solids content for Kynar resin over a primer in accordance with the manufacturer's written procedures. Color shall be as selected by the Architect/Engineer from the manufacturer's full color selection.

2.2 ACCESSORIES

- A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers.

2.3 FABRICATION

- A. Form sections shape indicated on Drawings, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet metal, interlocking with sheet.
- C. Form pieces in longest possible lengths. in single length sheets.
- D. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- E. Gutters shall be installed by using aprons and hangers or combination hangers of the same material as the gutter. (NOTE: Spikes and ferrules or brackets attached to outside periphery of the gutter will not be allowed.)

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.
- C. Before starting work, verify governing dimensions at building; examine, clean and repair, if necessary, any adjoining work on which this work is in any way dependent for its proper installation.

3.2 INSTALLATION

- A. Install clear sealant at all locations shown on details and where required.
- B. Secure flashings in place using concealed fasteners. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- C. Slope gutters to drain to downspouts a minimum of 1/16 inch per foot.
- D. Terminate downspouts with 45-degree discharge elbow or tie-in to existing underground drainage leader as indicated on drawings.
- E. Seal all metal joints watertight.

- F. Provide flashings or trim over all wood installed on project, where not covered by roofing, siding, or shingles. Leave no new wood exposed.

3.3 FIELD QUALITY CONTROL

- A. Section 01 70 00 – Execution and Closeout Requirements.
- B. Inspection will involve surveillance of Work during installation to ascertain compliance with specified requirements.

3.4 SCHEDULE

- A. Gutters:
 - 1. Material: Galvalume.
 - 2. Size: See Architectural Drawings.
 - 3. Thickness: 22 gauge.
 - 4. Finish: Kynar 500, factory applied 2 coat oven-cured Fluoropon coating with minimum 70 percent solids content for Kynar resin over a primer in accordance with the manufacturer's written procedures. Color shall be as selected by the Architect/Engineer from the manufacturer's full color selection.
- B. Downspouts, drip edge, and counter flashing:
 - 1. Material: Galvalume.
 - 2. Size: See Architectural Drawings.
 - 3. Thickness: 24 gauge.
 - 4. Finish: Kynar 500, factory applied 2 coat oven-cured Fluoropon coating with minimum 70 percent solids content for Kynar resin over a primer in accordance with the manufacturer's written procedures. Color shall be as selected by the Architect/Engineer from the manufacturer's full color selection.
- C. Metal Fasciae: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long sections. Furnish with 6-inch-wide, joint cover plates.
 - 1. Joint Style: Overlapped, 6 inches wide.
 - 2. Fabricate from the following materials:
 - a. Aluminum-Zinc Alloy-Coated Steel: 0.028-inch thick.
 - b. Color as selected by the Architect/Engineer from the manufacturer's full color selection.
- D. Drip Edges:
 - 1. Galvanized Steel: 0.022 inch thick.
- E. Roof Edge Flashing:
 - 1. Galvanized Steel: 0.022 inch thick.
- F. Roof-Penetration Flashing: Fabricate from the following materials:
 - 1. Stainless Steel: 0.0188 inch thick.
 - 2. Galvanized Steel: 0.028 inch thick.

END OF SECTION

SECTION 07 72 53 - SNOW GUARDS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Pad-type, seam-mounted metal snow guards.

1.2 ACTION SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
 - 1. Pad-type, seam-mounted metal snow guards.
- B. Shop Drawings: Include roof plans showing layouts and attachment details of snow guards.
- C. Samples:
 - 1. Pad-Type Snow Guards: Full-size unit with installation hardware.
 - a. For units with factory-applied finishes, submit manufacturer's standard color selections.

1.3 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit adhesive-mounted snow guards to be installed, and adhesive cured, according to adhesive manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design snow guards, including attachment to roofing material and roof deck, as applicable for attachment method, based on the following:
 - 1. Roof snow load.
 - 2. Snow drifting
 - 3. Roof slope.
 - 4. Roof type.
 - 5. Roof dimensions.

6. Roofing substrate type and thickness.
7. Snow guard type.
8. Snow guard fastening method and strength.
9. Snow guard spacing.
10. Coefficient of Friction Between Snow and Roof Surface: 0.

B. Performance Requirements: Provide snow guards that withstand exposure to weather and resist thermally induced movement without failure, rattling, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

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

C. Structural Performance: Snow guards to withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated.

1. Snow Loads: As indicated on Drawings.

2.2 PAD-TYPE SNOW GUARDS

A. Pad-Type, Seam-Mounted Metal Snow Guards:

1. Material:

- a. Metallic-Coated Steel Sheet: ASTM A653/A653M, with G90 coating, not less than 0.022 inch thick.

1) Finish: Powder coat finish complying with AAMA 2603, with a minimum dry film thickness of 1.5 mils.

a) Color: Match sheet metal roofing.

2. Attachment: Manufacturer's tested system, capable of resisting design loads.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, snow guard attachment, and other conditions affecting performance of the Work.

1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prime substrates according to snow guard manufacturer's written instructions.

3.3 INSTALLATION

- A. Install snow guards according to manufacturer's written instructions.
 - 1. Space rows as indicated on Drawings, unless otherwise recommended by manufacturer.
- B. Attachment for Standing-Seam Metal Roofing:
 - 1. Do not use fasteners that will penetrate metal roofing or fastening methods that void metal roofing finish warranty.
 - 2. Pad-Type, Seam-Mounted Snow Guards:
 - a. Install snow guards in straight rows.
 - b. Secure in place using manufacturer's preferred installation method, as indicated below or otherwise, as approved by Architect.
 - 1) Stainless steel set screws, incorporating round nonpenetrating point, torque set screw in accordance with manufacturer's written instructions.
 - 2) Crimping.

END OF SECTION

SECTION 07 92 00 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Preparing sealant substrate surfaces.
 - 2. Sealant and backing.
- B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.
- C. Related Sections:
 - 1. Section 076200 - Sheet Metal Flashing and Trim: Sealants used in conjunction with metal flashings.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM C717 - Standard Terminology of Building Seals and Sealants.
 - 2. ASTM C834 - Specification for Latex Sealants.
 - 3. ASTM C920 - Specification for Elastomeric Joint Sealants.
 - 4. ASTM D1056 - Flexible Cellular Material- Sponge or Expanded Rubber.
- B. Federal Specifications (FS):
 - 1. FS SS-S-200 - Sealing Compounds, Two Component, Elastomeric, Polymer Type, Jet-Fuel Resistant, Cold Applied.
 - 2. FS TT-S-1657 - Sealing Compound, Single Component Butyl Rubber Based Solvent Release Type (for Buildings and other Types of Construction).

1.3 SUBMITTALS

- A. Section 013300 – Submittal Procedures: Procedures for submittals.
 - 1. Product Data: Product chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.

1.4 WARRANTY

- A. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
- B. Warranty:
 - 1. Submit written warranty signed by sealant manufacturer agreeing to replace sealants and accessories which fail because of loss of cohesion or adhesion or which do not cure.
 - 2. Warranty Period: 5 years or longer per the manufacturers' standard warranties.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with project requirements, manufacturers offering specified items which may be incorporated into the work include the following:
1. Bostik, Inc, Huntingdon Valley, PA, (800) 523-2678, (125) 674-5600.
 2. Dow Corning, Midland, MI (517) 496-4000.
 3. GE Silicones, Waterford, NY (518) 233-3330.
 4. Mameco International, Cleveland, OH, (800) 321-6412, (216) 752-4400.
 5. W.R. Meadows, Inc, Elgin, IL (800) 342-5976, (847) 683-4500.
 6. Nomaco, Inc., Zebulon, NC, (919) 269-6500.
 7. Pecora Corporation, Harleysville, PA, (800) 523-6688, (215) 723-6051.
 8. Sika Corporation, Lyndhurst, NJ, (800) 933-7452, (201) 933-8800.
 9. Sonneborn Building Products Div. ChemRex, Inc., Shakopee, MN (800) 243-6739, (612) 496-6000.
 10. Tremco, Beachwood, OH, (800) 852-3821, (216) 292-5000.
 11. USG Corp., Chicago, IL (800) 874-4968, (312) 606-4000.
 12. Sherwin-Williams Co. (The), Cleveland, OH (800) 321-8194

2.2 BUILDING SEALANTS (See Sealant Schedule at the end of this Section for specific use of sealants.)

A. Urethanes:

1. Type 1: Two-Part Urethane: Self-Leveling, ASTM C920, Type M, Grade P, Class 25.
 - a. Chem-Calk CC-550, by Bostik.
 - b. Vulkem 245, by Mameco.
 - c. Vulkem 255, Wide-Joint, by Mameco.
 - d. NR-200 Urexpan, by Pecora Corporation.
 - e. Loxon 2K SL Multi-Component Polyurethane Sealant, by Sherwin-Williams.
2. Type 2: Two-Part Urethane: Non-Sag, ASTM C920, Type M, Grade NS, Class 25.
 - a. Chem-Calk 500, by Bostik.
 - b. Vulkem 227, by Mameco.
 - c. Sonolastic NP 2, by Sonneborn Building Products, ChemRex Inc.
 - d. Loxon 2K NS Multi-Component Polyurethane Sealant, by Sherwin-Williams.
3. Type 3: One-Part Urethane: Self-Leveling, ASTM C920, Type S, Grade P, Class 25.
 - a. Vulkem 45, by Mameco.
 - b. Urexpan NR-201, by Pecora Corporation.
 - c. Sonolastic SL1, by Sonneborn Building Products, ChemRex Inc.
 - d. Sikaflex 1C-SL by Sika.
 - e. Loxon 1K SL Polyurethane Sealant, by Sherwin-Williams.
4. Type 4: One-Part Urethane: Non-Sag, ASTM C920, Type S, Grade NS, Class 25.
 - a. Chem-Calk 900, by Bostik.
 - b. Vulkem 116, by Mameco.
 - c. Sonolastic NP I, by Sonneborn Building Products, ChemRex Inc.
 - d. Loxon 1K Smooth Polyurethane Sealant, by Sherwin-Williams.

B. Silicones:

1. Type 1: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 50.
 - a. 795 Silicone Building Sealant, by Dow Corning.

- b. 864 Architectural Silicone Sealant, by Pecora Corporation.
 - c. White Lightning Silicone Ultra Sealant, by Sherwin-Williams.
 - 2. Type 2: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 25.
 - a. 999-A Silicone Building & Glazing Sealant, Dow Corning.
 - b. Construction 1200 Sealant, General Electric Company.
 - 3. Type 3: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 25. Vertical Surfaces Only.
 - a. Construction 1200 Sealant, General Electric Company.
 - b. 999-A, Dow Corning.
 - c. 860 Glaziers and Contractors Silicone Sealant, by Pecora Corporation. (colors only)
 - 4. Type 4: One-Part Silicones: ASTM C920, Type S, Grade NS, Class 25 or 50.
 - a. 786 Mildew Resistant Silicone Sealant, Dow Corning.
 - b. SCS 1700 Sanitary Sealant, General Electric.
 - c. 898 Silicone Sanitary Sealant, Pecora Corporation.
- C. Acrylics, Latex:
 - 1. Type 1: One-Part Acrylic Latex, Non-Sag, ASTM-C-834-76.
 - a. Chem-Calk 600, by Bostik.
 - b. LC-130, by MACCO Adhesives, The Glidden Company.
 - c. Easa-ply ALS, by W. R. Meadows, Inc.
 - d. AC-20+Silicone Acrylic Latex, by Pecora Corporation.
 - e. Sonolac, Sonneborn Building Products, ChemRex Inc
 - f. 950A Siliconized Acrylic Latex Caulk, by Sherwin-Williams.
- D. Acoustical Sealants:
 - 1. Type 1: AC-20 FTR Acoustical and Insulation Sealant, by Pecora Corporation.
 - 2. Type 2: 60+ Unicrylic, by Pecora Corporation.
 - 3. Type 3: Sheetrock Acoustical Sealant, by United States Gypsum.
 - 4. Power House Siliconized Latex Caulk, by Sherwin-Williams
- E. Butyls:
 - 1. Type 1: One-Part Butyl, Non-Sag, FS TT-S-1657.
 - a. Chem-Calk 300, by Bostik.
 - b. BC-158 Butyl Rubber, by Pecora Corporation. (ASTM C1085)
 - c. White Lightning Butyl Rubber Caulk, by Sherwin-Williams. (ASTM C1311)
- F. Preformed Compressible & Non-Compressible Fillers:
 - 1. Type 1: Backer Rod - Closed cell polyethylene foam:
 - a. HBR Backer Rod, by Nomaco.
 - b. #92 Greenrod, by Nomaco.
 - c. Sonofoam Closed-Cell Backer Rod, Sonneborn Building Products, ChemRex Inc.
 - 2. Type 2: Backer Rod - Open cell polyurethane foam:
 - a. Denver Foam, by Backer Rod Mfg Inc.
 - b. Foam Pack II, by Nomaco.
 - 3. Type 3: Neoprene compression seals:
 - a. WE, WF, and WG Series, by Watson Bowman & Acme Corp.
 - b. Will-Seal 150 Precompressed Expanding Foam Sealants, by Will-Seal, a Division of Illbruck.
 - 4. Type 4: Butyl Rod: Kirkhill Rubber Co. (714)529-4901.

- G. Bond Breaker Tape: Polyethylene tape of plastic as recommended by sealant manufacturer, to be applied to sealant-contact surfaces where bond to substrate of joint filler must be avoided for proper performance of sealant

2.3 COLORS

- A. Generally, use sealant colors matching color of material joint is located in.
- B. Where a joint occurs between two materials of differing colors and Contractor cannot determine which material to match, contact Architect / Engineer for selection.

2.4 ACCESSORIES

- A. Joint Cleaner: Provide type of joint cleaning compound recommended by sealant manufacturer for joint surfaces to be cleaned.
- B. Primer: As recommended by sealant manufacturer.
- C. Masking tape and similar accessories to protect surfaces from damage.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017000 - Execution: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
 - 1. Verify that joint widths are in conformance with sealant manufacturer allowable limits.
 - 2. Verify that contaminants capable of interfering with adhesion have been cleaned from joint and joint properly prepared.
- C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.

3.2 PREPARATION

- A. Prepare and size joints in accordance with manufacturer's instructions. Clean substrates of dirt, laitance, dust, or mortar using solvent, abrasion, or sandblasting as recommended by manufacturer. Remove loose materials and foreign matter which might impair adhesion of sealant.
- B. Verify that joint backing and release tapes are compatible with sealant. Verify sealant is suitable for substrate. Verify that sealant is paintable if painted finish is indicated.

- C. Protect materials surrounding work of this Section from damage or disfiguration.

3.3 INSTALLATION

- A. Install sealant in accordance with manufacturer's published instructions.
- B. Prime or seal joint surfaces where recommended by sealant manufacturer. Do not allow primer or sealer to spill or migrate onto adjoining surfaces.
- C. Install backer rod and bond breaker tape where required by manufacturer.
- D. Install preformed compressible and non-compressible fillers in accordance with manufacturer's published instructions.
- E. Install sealants to depths recommended by sealant manufacturer in uniform, continuous ribbons free of air pockets, foreign embedded matter, ridges, and sags, "wetting" joint bond surfaces equally on both sides.
- F. Tool joints concave unless shown otherwise. Where horizontal joints are between a horizontal surface and a vertical surface, fill joint to form slight cove so that joint will not trap moisture and foreign matter. Dry tool joints. Do not use soap, water, or solvent to tool joints.
- G. Epoxy Floor Joint Sealant: Install sealant at floor construction and control joints in accordance with manufacturer's published instructions and initially under manufacturer's supervision.

3.4 CURING

- A. Cure sealants in compliance with manufacturer's published instructions.

3.5 CLEANING

- A. Remove excess and spillage of sealants promptly as the work progresses, using materials and methods as recommended by sealant and substrate manufacturers. Clean adjoining surfaces to eliminate evidence of spillage without damage to adjoining surfaces or finishes.

3.6 SEALANT SCHEDULE

- A. Exterior Joints:
 - 1. Painted metal lap or flashing joints.
 - a. Sealant Silicone Type 1

END OF SECTION

SECTION 08 31 13 - ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Exterior Access Doors and Frames.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each type of access door and frame and for each finish specified, complete assembly minimum 6 by 6 inches in size.
- C. Product Schedule: For access doors and frames.

PART 2 - PRODUCTS

2.1 ACCESS DOORS AND FRAMES

- A. Exterior Flush Access Doors See Architectural Drawings – Elevations and Sections:
 - 1. Basis-of-Design: LT-4000 Universal Flush Lightweight Aluminum Access Door by Acudor. Approved Equal is acceptable.
 - 2. Description: Weatherproof assembly, with face of door fit flush with frame and with exposed frame.
 - 3. Neoprene door gasketing, 1/8" x 3/8" closed cell.
 - 4. Continuous Aluminum Piano Hinge with exposed knuckle, 180 degree opening.
 - 5. Locations: New Exterior End Wall to access Attic. One each building as indicated on Drawings.
 - 6. Door Size: 30" wide by 30" high.
 - 7. Aluminum Panel for Door: Nominal 0.064-inch, 16 gage, factory finished, lined with 3/4" polystyrene insulation.
 - 8. Frame Material: Match Door.
 - 9. Cam latch operated with keyed lock.
 - 10. Handedness: Right-Hand-Reverse at all locations.

2.2 MATERIALS

- A. Aluminum Extrusions: ASTM B221, Alloy 6063.

- B. Aluminum Sheet: ASTM B209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.
- C. Frame Anchors: Same material as door face.
- D. Inserts, Bolts, and Anchor Fasteners: Hot-dip galvanized steel according to ASTM A153/A153M or ASTM F2329.

2.3 FABRICATION

- A. General: Provide access door and frame assemblies manufactured as integral units ready for installation.
- B. Metal Surfaces: For metal surfaces exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.
- C. Doors and Frames: Grind exposed welds smooth and flush with adjacent surfaces. Furnish mounting holes, attachment devices and fasteners of type required to secure access doors to types of supports indicated.
- D. Latch and Lock Hardware:
 - 1. Quantity: Furnish number of latches and locks required to hold doors tightly closed.
 - 2. Keys: Furnish two keys per lock and key all locks alike.

2.4 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- D. Painted Finishes: Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.
 - 1. Factory Primed: Apply manufacturer's standard, lead- and chromate-free, universal primer immediately after surface preparation and pretreatment.
 - 2. Factory Finished: Apply manufacturer's standard baked-enamel or powder-coat finish immediately after cleaning and pretreating, with minimum dry-film thickness of 1 mil for topcoat.
 - a. Color: As selected by Architect from full range of industry colors.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's written instructions for installing access doors and frames.
- B. Provide a 2x4 minimum wood stud or blocking at each side of frame, and 2x4 minimum wood blocking at top and bottom of frame.
- C. Install access doors such that top of door is no higher than the bottom of new roof trusses.

3.3 FIELD QUALITY CONTROL

- A. Repair or remove and replace installations where inspections indicate that they do not comply with specified requirements.
- B. Reinspect repaired or replaced installations to determine if replaced or repaired door assembly installations comply with specified requirements.

3.4 ADJUSTING

- A. Adjust doors and hardware, after installation, for proper operation.

END OF SECTION

SECTION 09 29 00 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior gypsum board.

B. Related Requirements:

1. Section 061600 "Sheathing" for gypsum over sheathing at interior walls.

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Gypsum board, Type X.
2. Interior trim.
3. Joint treatment materials.
4. Laminating adhesive.

1.3 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.4 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Obtain each type of gypsum panel and joint finishing material from single source with resources to provide products of consistent quality in appearance and physical properties.

2.2 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Gypsum Board, Type X: ASTM C1396/C1396M.
 - 1. Thickness: 5/8-inch.
 - 2. Long Edges: Tapered.

2.4 TRIM ACCESSORIES

- A. Interior Trim: ASTM C1047.
 - 1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet.
 - 2. Shapes:
 - a. Cornerbead.
 - b. Bullnose bead.
 - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - d. L-Bead: L-shaped; exposed long flange receives joint compound.
 - e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
 - f. Curved-Edge Cornerbead: With notched or flexible flanges.

2.5 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C475/C475M.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
- C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.

2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping or drying-type, all-purpose compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
3. Fill Coat: For second coat, use setting-type, sandable topping or drying-type, all-purpose compound.
4. Finish Coat: For third coat, use setting-type, sandable topping or drying-type, all-purpose compound.

2.6 AUXILIARY MATERIALS

- A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
- C. Steel Drill Screws: ASTM C1002 unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION AND FINISHING OF PANELS, GENERAL

- A. Comply with ASTM C840.
- B. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- C. Locate edge and end joints over supports. Do not place tapered edges against cut edges or ends.
- D. Form control and expansion joints with space between edges of adjoining gypsum panels.

3.3 INSTALLATION OF INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:

1. Type X: As indicated on Drawings.
- B. Single-Layer Application:
 1. On partitions/walls, apply gypsum panels vertically unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
 2. Fastening Methods: Adhere to plywood substrate and secure gypsum panels to substrate with steel drill screws.
- C. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written instructions and temporarily brace or fasten gypsum panels until fastening adhesive has set.

3.4 INSTALLATION OF TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Interior Trim: Install in the following locations:
 1. Cornerbead: Use at outside corners.
 2. LC-Bead: Use at exposed panel edges.

3.5 FINISHING OF GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
 1. Level 4: All locations.
 - a. Primer and its application to surfaces are specified in Section 099000 "Paintings and Coatings."

3.6 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.

- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION

SECTION 09 90 00

PAINTING AND COATING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and field application of paints and other coatings to interior surfaces.

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM D16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.
 - 2. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials.
 - 3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. Green Seal:
 - 1. GC-03 - Anti-Corrosive Paints.
 - 2. GS-11 - Product Specific Environmental Requirements.
- C. National Fire Protection Association:
 - 1. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials.
- D. Painting and Decorating Contractors of America:
 - 1. PDCA - Architectural Painting Specification Manual.
- E. South Coast Air Quality Management District:
 - 1. SCAQMD Rule 1113 - Architectural Coatings.
- F. SSPC: The Society for Protective Coatings:
 - 1. SSPC - Steel Structures Painting Manual.
- G. Underwriters Laboratories Inc.:
 - 1. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.3 DEFINITIONS

- A. Conform to ASTM D16 for interpretation of terms used in this section.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit data on finishing products and special coatings.

- C. Samples:
 - 1. Submit two paper chip samples illustrating full range of colors available for each surface finishing product scheduled.
- D. Manufacturer's Installation Instructions: Submit special surface preparation procedures, and substrate conditions requiring special attention.

1.5 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.
- B. Operation and Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Applicator: Company specializing in performing Work of this section with minimum three years documented experience and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.
- B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- C. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- D. Paint Materials: Store at minimum ambient temperature of 45 degrees F and maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements.
- B. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- D. Provide lighting level of 80 foot candle measured mid-height at substrate surface.

1.9 SEQUENCING

- A. Section 01 10 00 - Summary: Work sequence.

- B. Verify existing conditions and requirements of other trades before starting Work.
- C. Sequence application to the following:
 - 1. Do not apply finish coats until paintable sealant is applied.
 - 2. Back prime wood trim before installation of trim.

1.10 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish five-year manufacturer warranty for paints and coatings.

1.11 EXTRA MATERIALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Spare parts and maintenance products.
- B. Supply 1 gallon of each color, type, and surface texture; store where directed by Owner.
- C. Label container with color, type, and room locations, in addition to manufacturer's label.

PART 2 PRODUCTS

2.1 PAINTS AND COATINGS

- A. Manufacturers:
 - 1. The Glidden Co.
 - 2. MAB Paints.
 - 3. Benjamin Moore.
 - 4. Sherwin-Williams.
 - 5. Pittsburg Paints.
 - 6. Substitutions: Not permitted.

2.2 COMPONENTS

- A. Coatings: Ready mixed, except field catalyzed coatings. Prepare coatings:
 - 1. To soft paste consistency, capable of being readily and uniformly dispersed to homogeneous coating.
 - 2. For good flow and brushing properties.
 - 3. Capable of drying or curing free of streaks or sags.
- B. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve finishes specified; commercial quality.
- C. Patching Materials: Latex filler.
- D. Fastener Head Cover Materials: Latex filler.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions and requirements of other trades before starting Work.
- B. Verify surfaces and substrate conditions are ready to receive Work as instructed by product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of Work. Report conditions capable of affecting proper application.
- D. Test shop applied primer for compatibility with subsequent cover materials.
- E. Measure moisture content of surfaces using electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Plaster and Gypsum Wallboard: 12 percent.

3.2 PREPARATION

- A. Surface Appurtenances: Remove electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- B. Surfaces: Correct defects and clean surfaces capable of affecting Work of this section. Remove or repair existing coatings exhibiting surface defects.
- C. Marks: Seal with shellac those which may bleed through surface finishes.
- D. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- E. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.
- F. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.

3.3 APPLICATION

- A. Multiple colors might be selected and accent walls might be a component of the Project.
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.
- D. Sand wood and metal surfaces lightly between coats to achieve required finish.

- E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- F. Where clear finishes are required, tint fillers to match wood. Work fillers into grain before set. Wipe excess from surface.
- G. Prime concealed surfaces of interior wood surfaces scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with thinner.

3.4 FIELD QUALITY CONTROL

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Inspect and test questionable coated areas.

3.5 CLEANING

- A. Section 01 70 00 - Execution and Closeout Requirements: Final cleaning.
- B. Collect waste material which may constitute fire hazard, place in closed metal containers, and remove daily from site.

3.6 PROTECTION OF INSTALLED CONSTRUCTION

- A. Protect Work of other trades and surfaces not being painted.
- B. Protect completed Work from damage by other trades.

3.7 SCHEDULE - INTERIOR SURFACES

- A. Gypsum Board Walls:
 - 1. One coat SW PrepRite 200 Latex Primer; B28W200 or approved equal.
 - a. Four mils wet, 1.2 mils dry.
 - 2. Two coats SW ProMar 200 Latex Semi-Gloss; B300W200 or approved equal.
 - a. Four mils wet, 1.4 mils dry per coat.
- B. Interior Wood Items (Semi-Transparent Finish):
 - 1. One coat SW Wood Classics Oil Stain, A49 Series, or approved equal.
 - a. Four hundred fifty to 500 square feet per gallon.
 - 2. One coat SW Wood Classics Waterborne Polyurethane Varnish, A68 Series, or approved equal.
 - a. Four hundred to 500 square feet per gallon.
 - 3. One coat SW Wood Classics Waterborne Polyurethane Varnish, A68 Series, or approved equal.
 - a. Four hundred to 500 square feet per gallon.

END OF SECTION