



SPECIFICATIONS

FOR

ST. CLOUD HRA WESTWOOD VILLAGE APARTMENTS I & II ROOF REPLACEMENT

FEBRUARY 23, 2023

PROJECT NO. 2223

Steve Paasch · Evan Larson 808 Courthouse Square · St. Cloud, MN 56303 (320)252-3740 · fax (320)255-0683 www.gltarchitects.com

SECTION 00 01 05 - CERTIFICATION PAGE

PROJECT MANUAL FOR

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

PREPARED BY: GLTArchitects 808 Courthouse Square St. Cloud, MN 56303 (320)252-3740

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

ARCHITECT

Date: 2/23/23

Registration Number: 21740

END OF SECTION

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PART 1 - GENERAL

1.1 PROJECT

A. St. Cloud HRA Westwood Village Apartments I and II. Roof Replacement St. Cloud, MN 56303

OWNER

B. St. Cloud Housing Redevelopment Authority (HRA) 1225 West St. Germain St. Cloud, MN 56301 Project Manager: Paul Soenneker (P): 320.202.3147 (F): 320.407.0423 Email: psoenneker@stcloudhra.com

1.2 PRE-BID MEETING

- A. Pre-Bid Meeting will be held prior to date required for submission of Bids. Contractors are encouraged to attend in order to better understand Project, and for dissemination of information and clarification of intent of Construction Documents. Questions and responses will be published in an Addenda following conference.
- B. Pre-Bid Meeting will be held on March 7, 2023 @ 2:00 pm. local time, at the lobby of Westwood Village I. Architect and Owner Representative will be at the meeting.

The Prebid meeting will be the only opportunity for bidders to access the site.

1.3 BIDS DUE

A. Bids will be received by Tuesday, March 14, 2023 @ 3:00pm local time.

1.4 PLACE DUE

- A. Submit bids to the attention of Paul Soenneker at St. Cloud HRA, located at 1225 West St. Germain Street, St. Cloud, MN 56301
- B. Bids will be opened in public and will be accepted by sealed envelope only.
- 1.5 TYPE OF BIDDING, AND CLASSES OF WORK
 - A. Owner will accept proposals from general contractors or roofing contractors for a prime contract for complete construction of entire Project.

1.6 AVAILABILITY OF DOCUMENTS

- A. Drawings and specifications are on file at the following locations:
 - 1.) The office of GLTArchitects in St. Cloud, Minnesota.
 - 2.) The office of the Owner. St. Cloud HRA
 - 3.) MN Builders Exchange (Minneapolis and St. Paul Builders Exchanges)
 - 4.) St. Cloud Builders Exchange.
- B. Digital copies of the plans and specifications are available at <u>http://www.questcdn.com</u>.

ADVERTISEMENT FOR BIDS

1.7 BID SECURITY:

A. Prime Contract Bidders shall submit certified check or surety bond, payable to Owner, in amount of 5 percent of Bid. Surety must be authorized to do business in State of Minnesota. Bid security to be guarantee that Bidder will not withdraw bid without owner's consent. Bids to be valid for 30 days.

1.8 PERFORMANCE BOND

A. Performance Bond is required in amount of 100 percent of Contract amount.

1.9 REJECTION

- A. Owner reserves the right to reject any or all proposals and to waive Quoting formalities, and to award prime contracts to Contractor that Owner finds to their best advantage.
- B. Each Contractor agrees to waive any claim it has or may have against Owner, Architect, engineer, and their respective employees, arising out of or in connection with administration, evaluation, or recommendation of any Bid.

1.10 PRIOR APPROVAL

A. This Contract has a 7-calendar day prior approval clause for product Substitutions.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

1.1 DEFINITIONS

- A. Definitions set forth in General Conditions of the Contract for Construction are applicable to these Instructions to Bidders.
- B. Bidding Documents: Includes Advertisement for Bids or Invitation to Bid, Instructions to Bidders, and proposed Contract Documents including Addenda issued prior to receipt of Bids.
- C. Addenda: Written or graphic instruments issued prior to execution of Contract, which modify or interpret Bidding Documents, including Drawings and Specifications, by additions, deletions, clarifications, or corrections. Addenda will become part of Contract Documents when Construction Contract is executed.

1.2 BIDDERS REPRESENTATION

- A. Each Bidder, by submitting Bid, represents that Bidder has read and understands Bidding Documents and that Subcontractors Bidder intends to use have carefully and thoroughly reviewed Drawings, Specifications, and other construction Contract Documents, and have found them complete and free from ambiguities and sufficient for purpose intended. If this is not the case, they have followed procedure as outlined in 1.4 below.
- B. Each Bidder, by submitting their Bid, represents that they have carefully examined site of Work and that from their own investigations they have satisfied themselves as to nature and location of Work and character, quality, quantities of materials and difficulties to be encountered, type and extent of equipment and other facilities needed for performance of Work, general and local conditions, and other items which may, in any way, affect Work or its performance.
- C. Each Bidder, by submitting Bid, represents that Bidder intends to perform this Contract within prescribed time period allocated for this Work.

1.3 QUALIFICATION OF BIDDERS

A. Bidder and workers, employees, and Subcontractors they intend to use, are skilled and experienced in type of construction represented by construction Contract Documents Bid upon.

1.4 EXAMINATION OF BIDDING DOCUMENTS

- A. Each Bidder shall examine Bidding Documents carefully and, not later than 7 days prior to date for receipt of Bids, shall make written request to Architect for interpretation or correction of ambiguity, inconsistency, or error therein which they may discover. Architect will issue any interpretation or correction as an Addendum. Only written interpretation or correction by Addendum shall be binding. Neither Bidder nor any of their employees, agents, intended suppliers, or Subcontractors shall rely upon verbal representations, allegedly authorized or unauthorized from Owner, Owner's employees or agents, including Architect, engineers, or consultants, in assembling Bid Amount.
- B. In case of conflict in or between Drawings and Specifications, estimate and agree to provide greater quantity or better quality of materials and Work unless Bidder has, before submission of Bid, asked for and obtained written decision of Architect as to which method or materials will be required.

1.5 SUBSTITUTIONS

- A. Each Bidder represents that Bid is based upon the material and equipment described in Bidding documents.
- B. No substitution will be considered unless written request has been submitted to Architect for review at least 7 calendar days prior to date for receipt of Bids unless otherwise indicated. Each such request shall include complete description of proposed substitute, name of material or equipment for which it is to be substituted, drawings, cuts, performance and test data, and any other data or information necessary for a complete evaluation. All requests must have a stamped, self-addressed return envelope, and be made in duplicate. If Architect accepts any proposed substitution, such acceptance may be set forth in the Addendum. Final acceptance of substitute material will not occur until shop drawings and/or samples have been submitted and reviewed by Architect after contract award. **Substitution submittals by facsimile will not be reviewed**.

1.6 BIDDING PROCEDURES

- A. Prepare Bids on copies of Bid Form provided in Project Manual and submit in per Instructions to Bidders.
- B. Submit Bids in duplicate on Bid Forms included in Project Manual. Reproduce Bid Form for actual use. Forms bound with Project Manual are reproduction masters and copies of Specifications from which forms have been removed will be considered a mutilated copy. Legibly write proposals in ink with Amounts given both in words and figures where so indicated. Submit Proposals per prescribed form. Modifications thereof, deviations, or omissions there from, may be considered sufficient cause for rejection. Proposals carrying riders or qualifications to Bid as submitted may be rejected as irregular. Where there is a difference between Amounts shown in words and figures, Amount in words prevails.
- C. Bid is invalid if it has not been deposited at designated location prior to time and date for receipt of Bids indicated in Advertisement for Bid or Invitation to Bid, or prior to extensions thereof issued to Bidders.
- D. Unless otherwise provided in supplements to these Instructions to Bidders, no Bidder shall modify, withdraw, or cancel their Bid, or any part thereof, for 30 days after time designated for receipt of Bids in Advertisement for Bids or Invitation to Bid.
- E. Prior to the receipt of Bids, Addenda may be mailed or delivered to each person or firm recorded by Architect as having received the Bidding documents, and will be available for inspection wherever the Bidding documents are kept available for that purpose. Addenda issued after receipt of Bids will be mailed or delivered only to the selected Bidder. All addenda issued prior to the time of Bidding shall be covered in the proposal and will become a part of the Contract. State the numbers of addenda included on the proposal form.
- F. Erasures or other changes in the Bids must be explained or noted over the signature of the Bidder.
- G. The Bidder shall state in the Bidder's proposal the number of calendar days from the date of notification to proceed that will be required to complete Project.
- H. The Bidder shall refer to the Advertisement or Invitation to Bid (Document 00 11 13) for Bid Security requirements.
- I. Each copy of the proposal must be signed in ink by Bidder.
- J. Bids, which are not signed by individuals making them, should have attached thereto a Power of Attorney evidencing authority to sign Bid in name of person for whom it is signed.
- K. Bids, which are signed for a co-partnership, should be signed by all of the co-partners or by an Attorney-in-Fact. If signed by an Attorney-in-Fact, there should be attached to Bid, a Power of Attorney evidencing authority to sign Bid.
- L. Bids which are signed for a corporation should have correct corporate name thereof signed in handwriting or in typewriting and signature of President or other authorized officer of corporation should be manually written below or written or typewritten corporate name following word "By ______." If such a Bid is manual

signed by an official other than President of Corporation, a certified copy of a resolution of Board of Directors evidencing authority of such official to sign Bid should be attached to it.

- M. If Bids are signed by any other legal entity, attach authority of person signing for such legal entity to Bid.
- N. Submit proposal and other required data in opaque, sealed envelope, plainly identified as:

Name of Project Name of Owner Address of Owner Bidder's Name and Address

O. If submitted by mail, enclose proposal envelope in another envelope addressed for mailing. Submit proposals at time and place shown on Advertisement or Invitation to Bid (Document 00 11 13).

1.7 REJECTION OF BIDS

- A. Bidder acknowledges the right of Owner to reject any or all Bids and to waive any informality or irregularity in Bids received. In addition, Bidder recognizes the right of Owner to reject a Bid if Bidder failed to furnish required Bid security, or to submit data required by Bidding documents, or if Bid is in any way incomplete or irregular.
- B. Each Bidder agrees to waive claims it has or may have against Owner, Architect, engineer, and respective employees, arising out of or in connection with administration, evaluation, or recommendation of any Bid.

1.8 SUBMISSION OF POST-BID INFORMATION

- A. Upon request by Architect, selected Bidder shall, within 7 days thereof, submit the following:
 - 1. Statement of costs for each major item of Work included in Bid.
 - 2. Designation of Work to be performed by Bidder with Bidder's forces.
 - 3. List of Subcontractors or other person or organizations (including those who are to furnish materials or equipment fabricated to special design) proposed for such portions of Work as may be designated, names of Subcontractors proposed for principal portions of Work.
 - a. Include in Subcontractor list phone numbers, fax numbers, and addresses.
 - 4. Bidder is required to establish, to satisfaction of Architect and Owner, reliability and responsibility of proposed Subcontractors to furnish and perform Work described in Specification Sections pertaining to such proposed Subcontractors' respective trades. Prior to Award of Contract, Architect will notify Bidder in writing if either Owner or Architect, after due investigation, has reasonable and substantial objection to any person or organization. Bidder may, at their option, withdraw Bid without forfeiture of Bid security. If Bidder submits acceptable substitute with increase in Bid price to cover difference in cost occasioned by such Substitution, Owner may, at Owner's discretion, accept increased Bid price or Owner may disqualify Bidder. Subcontractors and other persons and organizations proposed by Bidder and accepted by Owner and Architect, shall be used on Work for which they were proposed and accepted and shall not be changed except with written approval of Owner, Architect, and Contractor.

1.9 CONTRACT AWARD

A. Owner reserves the right to make Contract award to Bidder that Owner finds to Owner's best advantage, including consideration of Unit Prices, Alternates, and completion time.

1.10 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

A. Each Bidder shall furnish performance and labor and material payment bonds, each in the amount of 100 percent of their Contract Amount. Execute Bonds by acceptable surety company or companies authorized to execute such in the State of Minnesota and be written in favor of Owner. Provide Bonds within 10 days of

Notice of Award of execution of Contract by Owner. Bonds shall remain in force throughout life of Contract and warranty period.

B. Bidder shall require Attorney-in-Fact who executed required Bonds on behalf of Surety to affix thereto a certified and current copy of their Power of Attorney indicating monetary limit of such power.

END OF SECTION

SECTION 00 25 13 - PRE-BID MEETING

PART 1 - GENERAL

1.1 PURPOSE

A. A Pre-Bid Meeting will be held prior to date required for submission of Bids. Bidders are encouraged to attend in order to better understand Project, and for dissemination of information and clarification of intent of Bidding Documents. Questions and responses will be published in Addenda following the meeting; the Pre-Bid meeting will be the only opportunity for bidders to access the building and apartments.

1.2 PREBID MEETING.

- A. Architect will conduct Pre-Bid Meeting. Owner will have a representative at the Meeting
 1. General Pre-Bid Meeting. Meeting will be held at 2:00 am. on March 7, 2023.
 - Meet at the Lobby of Westwood Village I at 770 Savanna Ave. St. Cloud, MN.
- B. NOT USED.
- 1.3 PART 3 -EXECUTION.
 - A. NOT USED

END OF SECTION

DOCUMENT 00 41 13 - BID FORM - STIPULATED SUM

BID DUE DATE: March 14, 2023

TO:	St. Cloud HRA 1225 West St. Germain Street St. Cloud, MN 56301
PROJECT:	Westwood Village Apartments I & II Roof Replacement.
OWNER:	St. Cloud HRA 1225 West St. Germain Street St. Cloud, MN 56301
ARCHITECT:	GLTArchitects 808 Courthouse Square St. Cloud, MN 56303

The undersigned, having become familiar with site of proposed Project and Bidding and Contract Documents for Project noted above, hereby proposes to provide Work per Contract Documents at Sum stated below.

BASE BID

(\$_____) ____(Description)

Refer: To Specification Section 01 23 00 for complete description of alternates.

Alternate 1:

Replace the asphalt shingles with prefinished metal roofing.

(\$_____) (Number)

(Description)

Accompanying this proposal is the Bid Security specified in Advertisement for Bids, the same being subject to forfeiture in the event of default by the undersigned.

CONTRACT TIME

Work of this Contract will commence upon Notice to Proceed: Start of construction to be September 18, 2023 and will be Substantially Complete no later than October 20, 2023.

I agree to Final Completion of Project by October 27, 2023.

Notice to Proceed will be given on or about March 25, 2023.

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

ADDENDA

Bidder hereby acknowledges receipt of the following Addenda. Modifications to Bid Documents noted therein have been considered and costs thereto are included in Base Bid Sum.

Addendum Numbers

ACKNOWLEDGMENTS

Bidder, in submitting this Bid, certifies that Bid is based upon careful examination of Bidding and Contract Documents and waives all rights to plead any misunderstanding.

Bidder, in submitting this Bid, understands that Owner reserves the right to reject any or all Bids, to waive any informality or irregularity in any Bid received, and to accept any Alternate(s) in any order or combination.

Bidder, in submitting this Bid, acknowledges that Bidder has read and fully understands Project Manual Document 00 21 13 – Advertisement for Bids.

CONTRACTOR ON-SITE PERSONNEL

Project Manager's Name: _____

Superintendent's Name:

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

BIDDER IDENTIFICATION

THE UNDERSIGNED operates as:

- () incorporated in the State of Minnesota
- () a Partnership
- () a Proprietorship

LEGAL NAME OF PERSON, FIRM OR CORPORATION

Legal Name:	
Address:	
Telephone:	Facsimile:
By:	Title:
Company License No.:	
Corporate Seal:	

Federal ID Number (if applicable)

END OF DOCUMENT

SECTION 00 52 13 - ST. CLOUD HOUSING & REDEVELOPMENT AUTHORITY CONSTRUCTION AGREEMENT

This CONTRACT AGREEMENT ("Contract") is made on _____, by and between **the St. Cloud Housing & Redevelopment Authority** ("HRA") located at 1225 West St. Germain Street; St. Cloud, MN 56301 and _____. ("Contractor") located at

A. Contractor wishes to enter into the following Contract with the HRA to furnish labor and materials to the complete ______ project located at _____ ("Project"), prepared by St. Cloud Housing and Redevelopment Authority. This Contract includes, by reference, all terms and conditions, and all other documents listed in this Contract and modifications issued after execution of this Contract.

B. The HRA has made available to Contractor all of the Project Documents, and Contractor has agreed to be responsible for obtaining copies pertinent to its work; and

C. The Project Documents have been carefully examined by Contractor, his agents and representatives. Contractor agrees the Project Documents are complete and accurate as to all work to be performed by the Contractor. Contractor assumes all responsibility for any part of the Project Documents that are incomplete or inaccurate.

I. TERMS AND CONDITIONS RELATING TO CONTRACTOR

1. Contractor shall furnish all labor, material, skill and equipment necessary or required to perform all the work for the Project as follows:

Contractor to provide labor and materials as shown in the Project Documents. Contract price shall be (including all taxes and permit fees): $\underline{\$}$

Subject to Part II of this Agreement, Contractor shall be paid as follows: Within 30 days of completion, or for stored materials

2. Contractor shall pay for all materials, labor and equipment used in, or in connection with the performance of this Contract when such bills or claims become due and to indemnify and hold harmless the Project and the HRA from all claims and mechanic's liens and to furnish satisfactory evidence to the HRA, when and if required that the Contractor has complied with the above requirements.

3. Contractor shall begin work within $\underline{30}$ calendar days after being notified, in writing, by the HRA that the Project is ready. Contractor further agrees that except for delays totally caused by the HRA, the Contractor will complete the work of this Contract Agreement within $\underline{120}$ days of notice to proceed.

Contractor agrees that time is of the essence in all matters involving this Contract. Contractor further agrees it is not possible for the HRA to determine all damages the HRA would suffer or incur as a result of any delay by the Contractor in completion of the Project. Contractor and the HRA agree that <u>\$125 per day</u>, as liquidated damages, and not a penalty, is fair and reasonable compensation to the HRA for any delays in completion of the Contractor's work on the Project.

4. Contractor agrees to proceed with the work in an orderly and reasonable sequence and to abide by the HRA's decision as to the allotment of all storage and working space of the Project.

5. Contractor agrees that no extension of time for performance of this Contract shall be recognized or permitted without the HRA's written consent.

6. Contractor agrees to indemnify and hold harmless the HRA, the HRA's agents and representatives, Architects, the HRA's lender and all other contractors and/or subcontractors from any and all losses or damage (including without limiting the generality of the foregoing, attorneys' fees and disbursements paid or incurred by the HRA to enforce the provisions of this paragraph) occasioned by the failure of Contractor to carry out the provisions of this Contract.

7. Contractor agrees to provide a Performance Bond prior to the beginning of work for all contracts of \$175,000 or greater.

8. Contractor agrees to obtain worker's compensation insurance as is required by law. Contractor further agrees to obtain comprehensive general liability and property damage insurance to protect the Contractor and the HRA against claims for bodily injury or death or for damage to property occurring upon, in or about the Project, with limits in amounts at least equal to those specified below:

Risk Insurance	\$1,000,000.00 Aggregate
Bodily Injury Liability	\$1,000,000.00 Each Person
General Liabilities Including Automobiles	\$2,000,000.00 Aggregate
Property Damage Liability	\$1,000,000.00 Aggregate
Worker's Compensation	As required by law

The Contractor shall also carry employer's liability coverage with minimum limits are as follows:

- \$500,000 Bodily Injury by Disease per employee
- \$500,000 Bodily Injury by Disease aggregate
- \$500,000 Bodily Injury by Accident

Any and all insurance shall be issued by an "A" rated insurance company or companies. Contractor agrees to furnish the HRA with satisfactory evidence that he has complied with this paragraph. Contractor further agrees to obtain and furnish the HRA with an undertaking by the insurance company issuing each such policy that such policy will not be canceled except after thirty (30) days written notice to the HRA of its intention to do so.

Contractor agrees to assume the entire responsibility and liability for all damages or injury to any and all individuals, whether employees or otherwise and to all property, including the HRA's property arising out of, resulting from, or in a manner connected with the performance of the work provided for in this Contract or occurring or resulting from the use by Contractor, his agents or employees of materials, equipment, instrumentality's or other property, whether the same is owned by the HRA, Contractor or third parties, and Contractor agrees to indemnify and save harmless the HRA, his agents and employees from any and all such claims, including, without limiting the generality of the foregoing claims for which the HRA may be, or may be claimed to be liable and attorneys' fees and disbursements paid or incurred to enforce the provisions of this paragraph.

All insurance required to be carried by Contractor shall name the HRA and the HRA's lender as additional insurers.

9. Contractor agrees to accept responsibility for all damage caused by Contractor to clean and repair all surfaces soiled or damaged by Contractor, and to protect the work performed by Contractor. If any dispute arises between Contractor and another Contractor and/or subcontractor as to which is responsible for any time of damage, the dispute shall be submitted to the HRA for decision and the HRA's determination as to responsibility shall be final and binding.

10. Contractor is solely responsible for initiating, maintaining and supervising all safety precautions and measures in connection with the performance of this Contract and agrees to take all safety precautions with respect to his work and shall comply with all applicable laws, ordinances, rules and regulations and lawful orders of any public or governmental authority for the safety of persons or property.

11. Contractor agrees not to assign or sublet any or all of this Contract and not to assign any money due or to become due there under without first obtaining prior written consent of the HRA. Contractor further agrees to supply the HRA with a list of all individuals or businesses it intends to subcontract work to or from whom it will obtain materials or equipment. Such list is attached hereto as Exhibit B and incorporated herein by reference, to which the HRA hereby consents.

12. Contractor agrees to furnish such shop drawings or samples as may be required by the HRA or Architect.

13. Contractor agrees not to employ any person who would be unacceptable to the HRA. Contractor further agrees to remove any such person if the HRA reasonably objects to his continued employment on this project.

14. Contractor agrees that the HRA, or his authorized representatives, shall have the right to order, in writing, the elimination or addition of any part of parts of work or materials as omitted from or added to this Contract by Architect and/or the HRA. Fair adjustments shall be made in the contract price for such omitted or added work or materials. No extra work shall be allowed or changes made by Contractor, or paid for by the HRA, unless and until authorized by the HRA, in writing, before the work and/or changes are begun. Contractor agrees to sign attached Exhibit A to this Contract and waives all claims for additions or changes unless the HRA has signed a written Change Order.

Contractor further agrees to give notice to the HRA of all claims for extras, for requests of extensions of time and for damages for delays or otherwise, promptly and in accordance with the General Contract. Contractor acknowledges and agrees that any change orders for extras must be consented to in writing by the HRA. Further, Contractor understands that only **Louise Reis, Executive Director** may sign Change Orders on the HRA's behalf.

15. Contractor agrees, as required by Minnesota law, to obtain and furnish to the HRA and to maintain in effect during the life of this Contract, or, if requested to do so by the HRA where not otherwise required by law, performance and/or payment bonds from a surety or sureties in the form and with sureties acceptable to the HRA in an amount equal to the contract price. All bond premiums will be paid by the Contractor.

16. Contractor guarantees its work against any and all defects in material or workmanship for a period of two years from the later of the date of final payment or the date the Certificate of Occupancy is issued by the building authority for the Project. Contractor hereby assigns all vendor warranties given by each equipment or parts manufacturer to the HRA.

17. In the event Contractor fails to correct, replace and/or repair faulty or defective work performed and/or materials furnished under this Contract, or shall fail to complete or diligently proceed with its work under this Contract within the time herein provided for, the HRA, upon three days notice in writing to Contractor shall have the right to correct, replace and/or re-execute such faulty or defective work, or to take over the work to be provided pursuant to this Contract and complete the same either through its own employees or through a contractor or subcontractor of its choice, and to charge the costs thereof to Contractor including compensation for the Architect's services against the sums owed under this Contract or to pursue any and all other remedies provided by law.

18. Contractor agrees that in case of default on the part of Contractor under the terms of this Contract, the material and equipment of Contractor shall be left at the Project for use by the HRA in completing the work covered by this Contract. The HRA shall be obligated to pay the Contractor for all such material and equipment.

19. Contractor agrees to obtain, at its cost, all permits, all licenses, all plan approval, all inspections and all other governmental approvals relating to this work on the Project and to comply with all federal, state, county, and municipal laws, codes and regulations and to pay all costs and expenses incurred in connection with such compliance, to pay all fees and taxes, including sales and use taxes, and also pay all taxes imposed by any state or federal law for any

employment insurance, pensions, retirement funds or any similar purpose, and to furnish all necessary reports and information to the appropriate federal, state and municipal agencies, with respect to all of the foregoing, the same as though Contractor was in fact the HRA and to hold the HRA and any other Contractor and/or subcontractor harmless from any and all losses or damage occasioned by the failure of Contractor to comply with the terms of this paragraph.

20. Contractor agrees to pay all royalties, license and permit fees to defend all suits or claims for infringement of any patent rights involved in the work of Contractor under this Contract and to save the HRA and other Contractors harmless from loss, costs or expense on account of such use or infringement by Contractor.

21. If any part of Contractor's work depends, for proper execution, upon the work of the HRA, any other Contractor, Contractor shall inspect and promptly report to the HRA any apparent discrepancies or defects in such work that renders it unsuitable for use on the Project. Failure of Contractor to inspect and report shall constitute an acceptance of the work of the HRA, other Contractors.

22. Contractor shall provide complete invoices, receipts and executed lien waivers in the form required by the HRA. Request for payment will be deemed accepted by the HRA on the date the HRA determines, in its sole judgment, that the HRA has all the information required to process the payment. The HRA will pay each such properly submitted invoice on a net-30 basis.

23. In all cases, Contractor agrees to perform all work in accordance with and to otherwise abide in all respects with all applicable federal, state and local laws, rules and ordinances.

24. Contractor is responsible for removing all their debris from the site at the expense of the contractor, and pay for any costs associated with fees for dumpster or landfill costs.

25. For all construction contracts awarded in excess of \$2,000 when required by Federal Grant Program legislation, both parties hereby agree to comply with the Davis-Bacon Act (40 U.S.C. 276a to 276a-7) as supplemented in Department of Labor Regulations (29 CFR Part 5).

26. Contractor responsible for MN Statute 471.425 subd. 4a regarding payments to subcontractors.

27. Contractor responsible for 24 CFR 75 Section 3 clause and any additional updates. This is a Section 3 Contract.

A. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended. The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be

directed to low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 75, which implemented section 3. As evidenced by their execution of this contract, the parties to this contact certify that they are under no contractual or other impediment that would prevent them from complying with the part 75 regulations.

C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 75, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 75. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 75.

E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 75 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 75.

F. Noncompliance with HUD's regulations in 24 CFR part 75 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contact. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

II. TERMS AND CONDITIONS RELATING TO THE HRA

28. The HRA agrees to employ Contractor to do the work described in Paragraph 1 hereof subject to the terms and conditions of this Contract.

29. The HRA agrees to pay Contractor the full amount, less retainage and other hold backs, owed upon faithful, prompt and complete performance of the Contractor's work to be performed under this Contract and the HRA's written acceptance of the work.

30. The HRA will release checks for Contractor's accepted invoices once a month for completed work, less a maximum 5% retainage and other hold backs.

31. Final payment, including all retention, shall become due and payable within thirty days after acceptance of the entire project and all work has been accepted by the HRA. The HRA may also condition final payment upon receipt of Mechanic's Lien Waivers or other proof that all subcontractors and material supplies have been or will be paid in full.

32. Final payment and all other payments to Contractor are conditioned upon the HRA receiving any and all documents reasonably required by the HRA to assure Contractor's compliance with all federal, state and local laws, rules and ordinances.

III. MISCELLANEOUS PROVISIONS

33. Any and all disputes relating to, or arising out of this Contract, or arising in anyway out of the Project, shall be submitted to binding arbitration before a single arbitrator appointed by the American Arbitration Association. Such arbitration shall be conducted under the Construction Industry Arbitration Rules of the American Arbitration Association and the arbitration hearing shall take place in St. Cloud, Minnesota. The discovery rules set forth in the Minnesota Rules of Civil Procedure shall apply to the arbitrator shall have the power to decide any discovery disputes. The prevailing party, as determined by the arbitrator, shall be awarded the arbitration fees it incurred, its reasonable attorney's fees, costs, and expert witness fees incurred in connection with the arbitration. Prior to filing an arbitration claim, the parties agree to mediate their disputes in St. Cloud, Minnesota, with a mediator selected by the HRA, after consultation with the Contractor. Each side shall pay one-half of the costs of the mediator.

34. This Contract shall not be modified except in writing signed by both the HRA and Subcontractor.

- 35. This Contract shall be construed and governed by the laws and remedies of Minnesota.
- 36. Exhibits:

The following noted documents are placed under each of the noted appendix and are a part of this contract:

- A. Exhibit A: Specific documentation pertaining to Section 3 that pertains to this contract.
- B. Exhibit B: Personal Guaranty or Business Guaranty
- C. Exhibit C: Extras, Changes Orders and Waiver
- D. Exhibit D: Verification of Sub-Contractors and Suppliers
- E. Exhibit E: Scope of Services, as agreed upon by the HRA and the contractor;
- F. Included by reference is any document or clause issued as a part of IFB that the HRA may choose to include at any time during the performance of this contract or any options exercised thereto by the HRA. Further, any document that may be referenced herein that has not been listed above is hereby incorporated herein by reference, and a copy of each such document is available from the HRA upon written request for such from the contractor.

Please note that, in the case of any discrepancy between this contract and any of the above noted exhibits, the requirement(s) detailed within the body of this contract shall take first precedence, then the requirement(s) detailed within each exhibit shall take precedence in the order that they are listed above (meaning, the requirement(s) detailed within the lower listed item may not overrule any requirement(s) detailed within a higher listed item).

ST. CLOUD HOUSING AND REDEVELOPMENT AUTHORITY

By____

Its: Executive Director

CONTRACTOR:

By_____ Its: _____

ARE YOU A CORPORATION? _____ PLEASE PROVIDE ONE OF THE FOLLOWING:

FEDERAL ID #____ OR SOCIAL SECURITY #

t. Cloud HRA			February 23,
estwood Village Apartr	nents I & II		Project No. 2
oof Replacement			
t. Cloud, MN	EXHIBIT A		
Sectio	on 3 Business Self-Cer	tification Form	
Business Name:			
Contact Name:		Title:	
Address:	City:	State:	Zip:
Phone:		Email:	
de	efinition in 24 CF	R Part 75.5?	
	YES	NO	
If YES , check t	he box below under wh	nich subcategory you qual	ify:
A Business Concern mee	ting at least one o [.]	f the following crite	ria, documented
w	ithin the last <u>six-m</u>	nonth period:	
1 It is at least 51 perce		ed by low- or very low-inc	ome persons (see the
annual limit established by 2 Over 75 percent of t	•	ed for the business over t	he prior 3 month
period are performed by S			
Section 3 Worker)			
3 It is a business at lea	ist 51 percent or more c	owned and controlled by d	current public housing
,	•		current public housing

If awarded the contract, the contractor will be responsible for providing documentation of their Section 3 status. Documentation can include, but is not limited to:

- 1. Proof of business ownership.
- 2. Three months of payroll review to establish the 75 percent rule.
- 3. Lease or proof of residency in public housing or Section 8-assisted housing.

By submitting this form, my business certifies that the statements and information contained on this form are true and accurate, and meet the HUD Section 3 business self-certification eligibility requirements in accordance with 24 CFR Part 75. I further understand that a Section 3 business is not entitled to a contract simply by being listed in the Section 3 Business Registry database. Section 3 Business Concerns are not exempt from meeting the specifications of the contract or other Section 3 requirements and obligations. Information that is misrepresented on this form will be grounds for terminating Section 3 certification.

Signature

St. Cloud HRA Westwood Village Apartments I & II Roof Replacment St. Cloud, MN

Section 3 Worker:

(1) Any worker who currently fits or when hired within the past five years fit at least one of the following categories, as documented:

(i) The worker's income for the previous or annualized calendar year is below the income limit established by HUD (2022 limit \$49,500.00)

- (ii) The worker is employed by a Section 3 business concern.
- (iii) The worker is a YouthBuild participant.

(2) The status of a Section 3 worker shall not be negatively affected by a prior arrest or conviction.

(3) Nothing in this part shall be construed to require the employment of someone who meets this definition of a Section 3 worker. Section 3 workers are not exempt from meeting the qualifications of the position to be filled.

Targeted Section 3 Worker:

(1) A worker employed by a Section 3 business concern; or

(2) A worker who currently fits or when hired fit at least one of the following categories, as documented within the past five years:

(i) A resident of public housing or Section 8-assisted housing;

(ii) A resident of other <u>public housing projects</u> or Section 8-assisted housing managed by the PHA that is providing the assistance; or

(iii) A YouthBuild participant.

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

EXHIBIT B

PERSONAL GUARANTY

I hereby personally guaranty all obligations of the Contractor/HRA under this Contract and agree to arbitrate and mediate all disputes as provided in the Contract.

EXHIBIT C

Extras, Change Orders and Waiver

TO: All Contractors and Suppliers

RE: Extras, Change Orders and Waiver

Any and all additional work which deviates from the original contract price shall be at your own risk unless authorized in writing by the HRA prior to said work occurring.

Any and all changes must be documented by a written change order signed by the HRA/Representative. Other employees of the HRA do not have express, implied or apparent authority to authorize additional work for the HRA. Verbal agreements or orders shall not constitute authorization and any work done pursuant to a verbal agreement or order shall be at your peril. This notice also constitutes your written waiver of any benefits conferred under a claim based on a quasi contract if and when work occurs pursuant to a verbal agreement or order.

THE ST. CLOUD HOUSING AND REDEVELOPMENT AUTHORITY

CONTRACTOR:

By_

Its: Executive Director 1225 West St. Germain Street (320) 252-0880 (320) 252-0889 Fax By_____ Its: _____

EXHIBIT D

VERIFICATION OF SUB-SUBCONTRACTORS AND SUPPLIERS

Please list all of your subcontractors and/or suppliers you anticipate using for the Project on this form and return to the HRA at least 10 days prior to commencing your work. This form must be returned to us before your first pay request will be processed and it must be updated before all other pay requests are processed.

If you will not be using any subcontractors or suppliers, please state that on this form, sign the bottom and return it to the HRA.

I, the undersigned, hereby certify and swear that the following list of subcontractors and or suppliers is complete, including any and all suppliers of labor and material to and for the Project.

Firm	Amount	Contact Person/Phone	
Firm	Amount	Contact Person/Phone	
Firm	Amount	Contact Person/Phone	
Firm	Amount	Contact Person/Phone	
		By	
Firm		(Print Name) Its	

(Print Title)

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

EXHIBIT E

Scope of Services

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St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

EXHIBIT F:

RESPONSIBLE CONTRACTOR VERIFICATION OF COMPLIANCE St. Cloud Housing and Redevelopment Authority

The purpose of this document is to certify contractor compliance with Minnesota Statutes, Section <u>16C.285</u>, subdivision 3. Covered contractors must sign the certification below and if subcontractors will be used under the contract, must comply with subdivision 7 requirements as to subcontractors.

Responsible Contractor, Minimum Criteria. "Responsible Contractor" means a contractor that conforms to the responsibility requirements in the solicitation document for its portion of the work on the project and verifies that it meets the minimum criteria set forth below. Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each subcontractor.

1. The Contractor:

- i. is in compliance with workers' compensation and unemployment insurance requirements;
- ii. is in compliance with the Department of Revenue and the Department of Employment and Economic Development registration requirements if it has employees;
- iii. has a valid federal tax identification number or a valid Social Security number if an individual; and
- iv. has filed a certificate of authority to transact business in Minnesota with the secretary of state if a foreign corporation or cooperative.
- The contractor or related entity is in compliance with and, during the three-year period before submitting verification, has not violated section <u>177.24</u>, <u>177.25</u>, <u>177.41</u> to <u>177.44</u>, <u>181.03</u>, <u>181.101</u>, <u>181.13</u>, <u>181.14</u>, or <u>181.722</u>, and has not violated United States Code, <u>title 29</u>, <u>sections</u> <u>201 to 219</u>, or United States Code, <u>title 40</u>, <u>section 3141 to 3148</u>. For purposes of this clause, a violation occurs when a contractor or related entity:
 - i. repeatedly fails to pay statutorily required wages or penalties on one or more separate projects for a total underpayment of \$25,000 or more within the three-year period, provided that a failure to pay is "repeated" only if it involves two or more separate and distinct occurrences of underpayment during the three-year period;
 - ii. has been issued an order to comply by the commissioner of labor and industry that has become final;
 - iii. has been issued at least two determination letters within the three-year period by the Department of Transportation finding an underpayment by the contractor or related entity to its own employees;
 - iv. has been found by the commissioner of labor and industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section <u>177.27</u>;

- v. has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or
- vi. has been determined to have violated Minn. Stat. §§ 181.03 (prohibited wage practices and retaliation), 181.101 (payment of wages) or 609.52, subd. 2 (19) (criminal wage theft)
- vii. has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court having jurisdiction.

Provided that, if the contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case proceeding, a violation does not occur until the contested case proceeding has concluded with a determination that the contractor or related entity underpaid wages or penalties;*

- 3. The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section <u>181.723</u> or chapter <u>326B</u>. For purposes of this clause, a violation occurs when a contractor or related entity has been issued a final administrative or licensing order;*
- 4. The contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section <u>363A.36</u> revoked or suspended based on the provisions of section <u>363A.36</u>, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office;*
- 5. The contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantaged business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification; and*
- 6. The contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions that have authority to debar a contractor.

*Any violations, suspensions, revocations, or sanctions, as defined in clauses 2 to 5 occurring prior to July 1, 2014, shall not be considered in determining whether a contractor or related entity meets the minimum criteria.

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

Certification

By signing this document, I am certifying that I am an owner or officer of the contractor and am verifying under oath that:

- 1. Contractor is in compliance with Minnesota Statutes, Section 16C.285,
- 2. That contractor has in place, and will continue maintain, records required to be kept by an employer and those records will either be kept at the place where employees are working or kept in a manner that allows the employer to comply with the commissioner's demand within 72 hours (section 177.30)
- 3. Contractor has carefully reviewed the 2019 revisions to Chapter 181 (employee wage protections) including section 181.101 (wages—how often paid) and section 16C.285 subdivision 3 (responsible contractor), section 177.30 (maintenance of records) and is in full compliance with the amended statutes
- 4. I have included Attachment A-1, and
- 5. if contractor is awarded a contract, I or another owner or officer will also submit a HRA subcontractor compliance form prior to execution of the contract (applicable to prime contractors only). If subcontractors are subsequently added to the project Contractor must file a supplemental subcontractor compliance form.

Contractor Company Name

Date

Authorized Signature of Owner or Officer

Printed Name

Title

ATTACHMENT A-1:FIRST-TIER SUBCONTRACTOR LIST (<u>Initial List</u>)

SUBMIT WITH CONTRACTOR SOLICITATION RESPONSE

Minnesota Statutes, Section <u>16C.285</u>, subdivision 5. A prime contractor or subcontractor shall include in its verification of compliance . . . a list of all of its first-tier subcontractors that it intends to retain for work on the project.

NAMES OF FIRST TIER SUBCONTRACTORS (Legal name of company as registered with the Secretary of State)	Company Address	Work To Be Performed

SECTION 00 61 00 - BOND FORMS

PART 1 - GENERAL

1.1 PERFORMANCE BOND

A. Owner requires Contractor to provide Performance Bond and Payment Bond. Use AIA Document A312. See Document 00 21 13, Article 1.10.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK OF THIS CONTRACT

- A. Work of this Single Prime Contract consists of General Construction; Westwood Village Apartments I & II at 770 Savanna Ave and 822 Savanna Ave. St. Cloud, MN. 56303
- B. Work of Contract is summarized by references to Contract, General Conditions, Supplementary Conditions, Specification Sections, Drawings, Addenda, and Modifications to Contract Documents issued subsequent to initial printing of this Project Manual, and including printed material referenced by any of these.
- C. It is recognized that Work of Contract is also unavoidably affected or influenced by governing regulations, natural phenomenon, including weather conditions, and other forces outside the Contract Documents.
- D. Work includes remove decorative parapets and replace on townhome Units 3 & 5. Replace membrane roof on the upper roof at Unit 5 and patch membrane roof as needed at Unit 3.

1.2 CONTRACT METHOD

A. Owner will award Stipulated Sum Single Prime Contract (St. Cloud HRA Construction Agreement) for total Work of Project.

1.3 PROJECT SCHEDULE FOR TIME OF COMPLETION

- A. Project construction will be based on the following schedule:
 - 1. Bid Opening: March 14, 2023
 - 2. Begin Construction September 18, 2023
 - 3. Substantial Completion: October 20, 2023
 - 4. Final Completion: October 27, 2023
- B. Owner-caused delays in this schedule will adjust schedule accordingly.

1.4 COMMENCEMENT OF WORK

- A. Neither commence Work, nor allow Subcontractors or Sub-subcontractors to commence Work until:
 - 1. Contract (St. Cloud HRA Construction Agreement) has been fully executed; and Owner has issued a Notice to Proceed.
 - 2. Owner has approved Contractor's Performance Bond and Payment Bond (AIA A312), if required.
 - 3. Owner has approved evidence of Contractor's Liability Insurance, Owner's Protective Liability Insurance, and other required insurance to be purchased by Contractor.

1.5 CONTRACTOR'S DUTIES

- A. Include items necessary for proper execution and completion of Work to produce intended results of Contract Documents.
- B. Include construction administration and supervision, labor, materials, articles, equipment, incidentals, items, tools, services, supplies, methods, operations, and skills in such quantities as may be necessary to complete Project within the intent of Contract Documents.

1.6 OVERLAPPING AND CONFLICTING REQUIREMENTS

- A. Where compliance with 2 or more standards or requirements is indicated, and where overlapping requirements establish different or conflicting levels of quality; the most stringent requirement is intended, and will be enforced unless written approval is granted otherwise by Architect.
- B. Bidding Stage: Notify Architect in writing of overlapping and conflicting requirements for clarification by Addenda.
- C. Construction Stage: Refer to Architect for resolution of conflicting requirements and uncertainties as to which level of quality is more stringent, and receive written clarification from Architect before proceeding with questioned Work.

1.7 CONTRACTOR USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 - 1. Owner occupancy.
 - 2. Construction operations and activities.
- B. Confine Work, including construction operations and activities, within construction limits directed by Owner.
- C. Emergency Building Exits During Construction: Maintain required building exits necessary for fire and life safety conditions. Review enclosures for temporary exit corridor construction with Architect and local fire and building officials to insure safety and compliance with applicable codes.
- D. Utility Outages and Shutdown: Obtain written permission from Owner at least 48 hours in advance of such occurrences. Provide and maintain proper shoring and bracing for existing underground utilities and sewers encountered during excavation Work, protect them from collapse or movement, or other types of damage until such time as they are to be removed, incorporated into new Work, or can be properly backfilled upon completion of Work.
 - 1. Limit such disruptions of services to a maximum of 1 hour. Prior to beginning excavation, contact utility companies for locations of existing underground services.
- E. Protect pavements, curbs, trees, landscaping, and existing construction during the course of Work. Repair or replace parts of same that become damaged.
- F. Keep vehicles clean to prevent depositing of dirt and debris on public streets or highways. Pay costs levied by public authorities having jurisdiction in connection with the cleaning of streets soiled by Work of this Contract.
- G. Assume full responsibility for protection and safekeeping of products and materials under this Contract. Store products on site.
- H. Provide and maintain access roads for delivery of materials and services to site.
- I. Keep driveways and entrances serving site clear and available to Owner and Tenants at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
- J. Schedule Work that will result in reduction of noise and disruption of Tenants with Owner's Representative. Schedule noisy and disruptive Work of long duration during scheduled work hours.

1.8 OWNER OCCUPANCY

- A. Full Occupancy: Owner will fully occupy Project site, and existing facilities during entire period of construction for conduct of normal operations.
 - 1. Cooperate with Owner to minimize conflict, and to facilitate Owner's operations and Tenants.

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

SECTION 01 23 00 – DESCRIPTION OF BASE BID & ALTERNATES

GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for alternates.

1.2 BASE BIDS

- A. Cost of Project as indicated in Specifications and /or shown and detailed on Drawings for the following Prime Contracts:
 - 1. General Construction Contract

1.3 BASE BIDS

- A. Cost of the Project as indicated in Specifications and indicated on Drawings.
- B. Each contractor and subcontractor is responsible for having viewed Contract Documents for their work and other contracts to determine extent of their work and inter-relationship of their work to that of other contracts.

1.4 ALTERNATE PRICES

- A. Bid proposal form for each contract above may contain alternates listed below. Contractor, in submitting proposal for an alternate, shall include labor, materials, equipment, services, overhead, and profit for each items as described in this Section.
- B. Alternates will be taken as selected by Owner.
- C. General Construction Alternates.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 LIST OF ALTERNATES

- A. Alternate #1
 - 1. Base bid is to install asphalt shingles. The Alternate is to provide metal roofing in lieu of asphalt shingles.

SECTION 01 25 03 - PRODUCT SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Special definitions.
 - 2. Methods of specifying.
 - 3. Substitution procedures.

1.2 DEFINITIONS

- A. Standard of Quality: Specified manufacturers, materials, products, and equipment have been used in preparing Contract Documents and thus establish minimum qualities for performance and appropriateness.
 - 1. Materials, products, and equipment described in Contract Documents establish a standard of required function, dimension, appearance, and quality.
 - 2. Comply with Specifications and reference standards as minimum requirements.
 - 3. Where a particular manufacturer and product is indicated, followed by a description of product (material and equipment) including special features or performance criteria, manufacturer agrees to make necessary modifications to manufacturer's "Standard or Custom Products" to fully comply with product described.
- B. Base Bid: Base on materials, products, and equipment described in Contract Documents.
 - 1. The phrase "or equal" is not used within this Project Manual and is not implied. Where non-specified manufacturers are allowed, the term "Approved Substitute" will be used. Make requests for substitutions to comply with procedures specified herein.
 - 2. It is understood and agreed by Contractors, Subcontractors, and material suppliers, that Bids and Contracts are based on products (material and equipment) and processes as specified or as revised by Addenda or Modification.
- C. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by Contractor and received 7 days before Bid Date are considered requests for substitutions. The following are not considered substitutions:
 - 1. Revisions to Contract Documents requested by Owner or Architect.
 - 2. Specified options of products and construction methods included in Contract Documents.
 - 3. Contractor's determination of, and compliance with, governing regulations and orders issued by governing authorities.

1.3 SUBSTITUTION TIME FRAME AND CONSIDERATIONS

- A. Pre-Bid Substitutions (Prior Approval):
 - 1. Instructions to Bidders (AIA Document A701) specifies time restrictions for submitting requests for Substitutions during Bidding period to requirements specified in this Section.
 - 2. Submittal Time Limit: To be received by Architect not less than 7 days before Bid opening.
 - 3. Consideration: Substitution will only be considered if submitted by an [**invited**] [**bidding**] Contractor and each request includes information listed under "Conditions" Paragraph specified below.
- B. Post-Bid/Pre-Award Substitutions; Bid Adjustment Substitutions:
 - 1. Substitution Time Limit: Between Bid Opening date and Award of Contract date.
 - 2. Consideration: Substitution will only be considered if submitted by pending Contractor and substitution request is being made because specified product has become unavailable.
 - a. Include with requests information listed under "Conditions" Paragraph specified below.

- C. Substitution Requests Made After Award of Contract:
 - 1. Consideration: Substitution will only be considered if submitted by Contractor and substitution request is being made because a specified product has become unavailable.
 - a. Include with requests information listed under "Conditions" Paragraph specified below.
- D. Failure to complete Document 01 25 11 Substitution Request Form, or to submit requested information in acceptable format, is grounds for rejection.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawings or Product Data submittals, without prior written approval from Architect, or when acceptance will require revision to Contract Documents.
- F. Architect may require testing of substitute material to assure compliance with Specifications, at Contractor's expense. When so directed, submit Samples for acceptance. Equipment, material, and articles installed or used without required acceptance shall be at risk of subsequent rejection.

1.4 SUPPORTING INFORMATION FOR SUBSTITUTIONS

- A. Include the following supporting information: Name of product (material or equipment) for which substitution is being requested and a complete description of proposed substitute including drawings, Product Data, Shop Drawings, Samples, performance and test data, and other information necessary for an evaluation. Cross-reference submitted data to specified products for Architect's evaluation.
 - 1. Substitution Request Form: Submit completed Substitution Request Form with each request for substitution including the following information:
 - a. A statement indicating changes in other materials, equipment, or other Work that incorporation of this substitute would require.
 - b. Comparison of qualities of proposed substitution with specified product.
 - c. Changes required in other elements of Work because of substitution.
 - d. Effect on construction schedule.
 - e. Cost data comparing proposed substitution with specified product.
 - f. License, fees, or royalties required.
 - g. Availability of maintenance service and source of replacement materials.
- B. Alterations or changes to other Work are responsibility of Contractor proposing substitution, including redesign if determined by Architect.
 - 1. Burden of proof of merit of proposed substitute is upon proposer.
- C. It is understood and agreed by Bidders, Contractors, material suppliers, and tier Subcontractors, that Bids and Contracts are based on products (material and equipment) and processes as specified or as revised by addenda or modification.

1.5 CONSIDERATION REQUIREMENTS

- A. Substitution request will be considered by Architect when the following conditions are satisfied:
 - 1. Extensive revisions to Contract Documents are not required.
 - 2. Proposed changes are in keeping with general intent of Contract Documents.
 - 3. Request is timely, fully documented, and properly submitted.
 - 4. Substitution Request Form is completed and attached. Additionally, one or more of the following are satisfied:
 - a. If specified product is not available.
 - b. Specified product or method of construction cannot be provided within Contract Time. Request will not be considered if product or method cannot be provided as a result of failure to pursue Work promptly, coordinate activities properly, or submit required submittals in a timely manner.
 - c. Specified product or method of construction cannot receive necessary approval by governing authority and requested substitution can be approved.

- d. Substantial advantage is offered to Owner, in terms of cost, time, energy conservation, or other considerations of merit, after deducting offsetting responsibilities Owner may be required to bear as determined by Architect, which includes additional compensation to Architect for redesign and evaluation services, increased cost of other construction, or separate contractors, and similar considerations.
- e. Specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where Contractor certifies substitution will overcome incompatibility.
- f. Specified product or method of construction cannot be coordinated with other materials, and Contractor certifies proposed substitution can be coordinated.
- g. Specified product or method of construction cannot provide a warranty required by Contract Documents and Contractor certifies proposed substitution provides required warranty.
- B. Where proposed substitution involves more than one installer, installers shall cooperate to coordinate Work, provide uniformity and consistency, and assure compatibility of products.
- C. To determine if proposed substitution complies with function, appearance, quality, performance, and dimensional characteristics of specified item, Architect may:
 - 1. Require Sample units, technical Product Data, and independent test reports sufficient to establish compliance, cost of which shall be paid by submitting party.
- D. Substitution request not complying will be returned without action other than to record noncompliance with submittal requirements.

1.6 CONTRACTOR'S/BIDDER'S REPRESENTATION

- A. Request for substitutions constitute representation that Contractor/Bidder:
 - 1. has investigated proposed product and determined that it is equal to or superior in all respects to specified product.
 - 2. will provide same or better warranties or bonds for substitution as for specified product.
 - 3. will coordinate installation of substitution, if accepted, into Work; and make other changes as required to make Work complete and meet the intent of Contract Documents.
 - 4. waives claims for additional costs, under Contractor/Bidder's responsibility, which may subsequently become apparent.
 - 5. will pay Owner for Architect's time required by substitutions to modify and coordinate documents as a result of change.

1.7 ARCHITECT'S EVALUATION PROCESS

- A. Architect is sole judge of acceptability of proposed substitution.
- B. Architect will review requests for substitutions with reasonable promptness and respond as follows:
 - 1. Request additional information or documentation necessary for evaluation.
 - 2. Pre Award: Notify Bidders of decision to accept proposed substitution by written Addendum.
 - 3. Post Award: Notify Contractor in writing of decision to accept or reject proposed substitution.
- C. Accepted substitutions will be documented by Architect's Supplemental Instruction, or, if Contract Sum or Time is affected, by Modification (Construction Change Directive or Change Order), including manufacturers' names and catalog numbers.

PART 2 - PRODUCTS -NOT USED

PART 3 - EXECUTION - NOT USED

SECTION 01 25 11-SUBSTITUTION REQUEST FORM

TO: GLTARCHITECTS 808 COURTHOUSE SQUARE ST. CLOUD, MN 56303

PROJECT: _____

Project No.: _____

Date:

We hereby submit for your consideration the following product instead of the specified item for the above-mentioned Project.

Proposed Substitution/	Descrip
Manufacturer's Name:	

WHY IS SUBSTITUTION BEING SUBMITTED? (Select 1 of the following):

- Pre-Bid Substitution (Prior Approval): Include detailed analysis comparing proposed substitution against specified product, including redlined Specification Section showing differences.
- Specified product is not available. Explain in detail using attached letter.
- Cost savings to Owner. Indicate comparative cost analysis as attachment.
- Other. Explain:

EFFECTS OF PROPOSED SUBSTITUTION

(Attach complete explanations and technical data, including laboratory test, if applicable.) Include complete information changes to Drawings and/or Specification that proposed substitution would require for its proper installation. Fill in blanks below:

A. Does the substitution affect dimensions shown on Drawings?	🗌 No	🗌 Yes	
---	------	-------	--

- B. Will the undersigned pay for changes to building design, including engineering and detailing costs caused by requested substitution?
- C. What affect does substitution have on other trades?

D. Differences between proposed substitution and specified item?

E. Manufacturer's guarantees of proposed and specified items are: Same Different (explain on attachment)

The undersigned states that function, appearance, and quality are equivalent or superior to specified item.

SUBMITTED BY:

(included name, address, telephone, and contract person	□ Accepted □ Accepted as noted
of manufacturer/supplier of proposed substitution)	□ Not accepted □ Received too late
	Incomplete Information
	□ No substitutions accepted for this
	Reviewed by/date:

Comments:

For Architect's use:

Submitted by:

Subcontractor's signature and date: ______ Contractor's signature and date:

SECTION 01 26 00 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS (ASI)

A. Architect will advise of minor changes in Work not involving an adjustment to Contract Sum or Contract Time by issuing supplemental instructions to Contractor on AIA Document G710, Architect's Supplemental Instructions.

1.2 PROPOSAL REQUEST (PR)

- A. Architect may issue to Contractor a proposal request on AIA Document G709 Proposal Request, which includes detailed description of proposed Contract change with supplemental or revised Drawings and Specifications, a change in Contract Sum, Contract Time, or both for executing change, and period of time during which requested price will be considered valid.
- B. Respond to proposed change describing full effect of Work. Include statement describing effect on Contract Sum, Contract Time, and effect on work by separate or other contractors. Include full documentation of how costs were figured, including labor and material cost, overhead, profit, tax, bond costs, and supervisor, and indicate period of time during which proposed change will be considered valid if different from that required in Proposal Request.

1.3 CONTRACTOR PROPOSED CHANGES (CPC)

- A. Contractor may propose to Architect, on Contractor's official letterhead, a change in Contract, describing proposed change, and its full effect on Work.
- B. Include a statement describing reasons for change, effect on Contract Sum or Contract Time or both, with full documentation, including full documentation of how costs were figured, including labor and material cost, overhead, profit, tax, bond costs, and supervisor, and a statement describing effect on work by separate or other contractors.
- C. Architect will review proposed change with Owner, and if accepted, Architect will prepare a Change Order and distribute to Contractor and Owner for their acceptance and authorization.

1.4 CHANGE ORDERS (CO)

- A. Architect will issue AIA Document G701 Change Orders for changes to Contract Sum or Contract Time.
- B. Architect will prepare Change Order and distribute to Contractor and Owner for their acceptance and authorization.

1.5 CONSTRUCTION CHANGE DIRECTIVE (CCD)

- A. Architect may issue to Contractor a construction directive, on AIA Document G714 Construction Change Directive, authorized by Owner instructing Contractor to proceed with a change in Work, for subsequent inclusion by Change Order.
- B. Document will describe changes in Work, and designate method of determining changes in Contract Sum or Contract Time. Promptly execute change.
- C. After changes to Contract Sum and Contract Time have been determined, Architect will prepare Change Order and distribute to Contractor and Owner for Contractor's and Owner's acceptance and authorization.

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

SECTION 01 29 00 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements governing Contractor's Applications for Payment.

1.2 SCHEDULE OF VALUES

- A. Submit typed preliminary schedule on AIA Document G702 Application and Certificate for Payment and AIA Document G703-Continuation Sheet.
- B. Submit Schedule of Values in duplicate to Architect for approval within 5 business days after execution 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 Sections. Identify site mobilization, bonds and insurance, and General Conditions.
- D. Include in each line item the amount of Allowances specified, if any. For Unit Prices, identify quantities taken from Contract Documents multiplied by unit cost to achieve total for item.
- E. Include within each line item, a directly proportional amount of Contractor's overhead and profit.

1.3 APPLICATIONS FOR PAYMENT

- A. Preparation of Applications:
 - 1. Use data from approved Schedule of Values.
 - 2. Submit application on AIA Document G702 Application and Certification for Payment and AIA Document G703-Continuation Sheet. When Architect requires substantiating information, submit data justifying dollar amounts in question.
 - 3. Complete every entry on form, including notarization and execution by person authorized to sign legal documents on behalf of Contractor. Fill in Change Order Summary, including number of days of extension to Contract Time. Incomplete application will be returned without action.
 - a. Entries shall match data on Progress Schedule. Use updated schedules if revisions have been made.
 - b. Include amounts of Owner approved Change Orders and Construction Change Directives issued prior to last day of construction period covered by application.
 - 4. Submit executed copies of each Application for Payment to Architect through e-Builder.
 - 5. Waivers of Mechanics Lien:
 - a. Submit waivers of lien on forms, and execute in a manner, acceptable to Owner.
 - b. With each Application for Payment, except first, submit waivers of mechanics lien from every entity who may lawfully be entitled to file mechanics liens arising out of Contract and related to Work covered by previous payment.
 - c. Submit final Application for Payment with or preceded by final waivers from entity involved with performance of Work covered by application who could lawfully be entitled to lien.

B. Submittal and Payment Dates:

- 1. Submit Application for Payment to Architect on or before the last day of the month.
- 2. Architect will act on Application for Payment no later than the 10th day of the following month.

1.4 PROGRESS PAYMENTS

- A. The amount of each progress payment shall be computed as follows:
 - 1. Take that potion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of five percent (5%).
 - 2. Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of five percent (5 %).
 - 3. Subtract the aggregate of previous payments made by the Owner; and
 - 4. Subtract amounts, if any for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201-2007.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 PROJECT COORDINATION

- A. Coordinate construction operations included in various Specification Sections to assure efficient and orderly installation of each part of Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of Work. Such administrative activities include the following:
 - 1. Preparation of schedules.
 - 2. Installation and removal of temporary facilities.
 - 3. Delivery and processing of submittals.
 - 4. Progress meetings.
 - 5. Project closeout activities.
- C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.
- D. Verify that utility requirements of operating equipment are compatible with building utilities. Coordinate Work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- E. Coordinate space requirements and installation of mechanical and electrical Work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable. Place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. Conceal pipes, ducts, and wiring within the construction occurring in finished areas, except as otherwise indicated. Coordinate locations of fixtures and outlets with finish elements.
- G. Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
 - 1. Prepare similar memoranda for Owner and separate Contractors where coordination of their Work is required.
- H. Coordinate completion and clean up of Work of separate Sections in preparation for Substantial Completion.
- I. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in compliance with Contract Documents, to minimize disruption of Owner's activities.

1.2 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Coordination Drawings: Submit coordination drawings where close and careful coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space availability necessitates maximum utilization of space for efficient installation of different components.
 - 1. Show interrelationship of components shown on separate Shop Drawings.
 - 2. Indicate required installation sequences.

PROJECT MANAGEMENT AND COORDINATION

- C. Staff Names: Within 15 days of Notice to Proceed, submit list of Contractor's principal staff assignments, including Superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities.
- D. Basic Coordination Schedules:
 - 1. Submit Project schedules showing relationship of Contractor and various Subcontractors in chronological sequence. Regular updating and reporting on Project schedule will indicate level of coordination that Contractor has achieved at critical stages in Work.

1.3 REQUEST FOR INFORMATION

- A. Requests for Information (RFIs) are encouraged as a documented means of communication between Contractor and Architect. Plan, schedule, coordinate, and sequence Work so RFI, if necessary, may be submitted to Architect in a timely manner so as not to delay progress of Work. Transmit submissions of and responses to RFI, with copies to Owner, via facsimile equipment.
- B. Limit RFI to 1 specific topic, question, or issue, and if at all possible, limit to 1 or 2 sentences. Submit RFIs sequentially on standard form on Contractor's letterhead. Include following information on each RFI:
 - 1. RFI number, date of issue, Architect's Project name and job number. Include this information on each separate sheet of attachments, if any (sketches, Subcontractor documentation, supporting information, etc.).
 - 2. Text on RFI.
 - 3. Indication if topic in question may have a possible impact on Contract Sum or Contract Time.
 - 4. Space for hand-printed response (1/3 to 1/2 of page).
 - 5. Space for respondent signature and date.
 - 6. Architect will have same time period to respond to an RFI as Shop Drawing review period.
 - 7. No damages for delay due to RFI response beyond allotted time will be allowed, unless Contractor can show that RFI was not foreseeable with proper planning, scheduling, coordination, and sequencing, and that Architect's late response delayed timely purchase or delivery of equipment or materials, or limited construction personnel from proceeding with their task(s) within previously listed "Progress Schedule" activity period(s).

1.4 PRE-CONSTRUCTION MEETING

- A. Architect will schedule a pre-construction meeting after Owner has issued the Notice to Proceed. Conduct meeting to review responsibilities and personnel assignments.
- B. Attendance Required: Owner Representative, Architect and Architect's Consultants, Contractor and Contractor's Superintendent, major Subcontractors, manufacturers, suppliers, and other concerned parties.

1.5 COORDINATION MEETINGS

- A. Conduct Project coordination meetings, in addition to specific progress meetings scheduled by Architect, at regularly scheduled times convenient for parties involved.
- B. Request representation at each meeting by every party currently involved in coordination or planning for construction activities involved.
- C. Record meeting results and distribute copies to everyone in attendance, and to others affected by decisions or actions resulting from each meeting.

1.6 PROGRESS MEETINGS

A. Architect will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within 3 days to Contractor, Owner, participants, and those affected by decisions made.

PROJECT MANAGEMENT AND COORDINATION

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B. Attendance Required: Contractor's Superintendent, major Subcontractors and suppliers, Owner's Representative, Architect, Independent Laboratory representative, and as appropriate to agenda topics for each meeting.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Project start-up submittals.
 - 2. Product Data, Shop Drawings, and Sample submittals.
 - 3. Quality control submittals.
 - 4. Contract closeout submittals.
 - 5. Procedure for submitting, reviewing, and resubmitting.

1.2 ADMINISTRATIVE (PROJECT START-UP) SUBMITTALS

- A. Certificate of Insurance: As defined in Supplementary General Conditions.
- B. Performance and Payment Bonds: Refer to Supplementary Conditions of the Contract and Section 00 61 00.
- C. Construction Schedule: Prepare and submit initial Construction Schedule in duplicate within 7 days after date of Owner-Contractor Agreement for Architect's review and approval. Submit schedule detailed enough to address Work activities, estimated duration of activities, and activities' interrelationships with other Work activities.
 - 1. Obtain Construction Schedule approval prior to initial Application for Payment, or payment will be withheld until process has been completed.
 - 2. Initial Submittal: Submit Construction Schedule in both critical path method (CPM) and horizontal bar chart form and activity listing with a separate line for each activity of Work, identifying first Work day of each week.
 - 3. Critical Path Method: Create network analysis system (logic diagram) using critical path method (CPM) in form acceptable to Owner and Architect.
 - a. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities.
 - b. Indicate early and late start finish, float dates, and duration of activities.
 - c. Show projected percentage of completion for each item of Work as of time of each progress Application for Payment.
 - d. Indicate product deliver dates, including those furnished by Owner that affects completion date.
 - 4. Updates: Submit copy of revised Construction Schedule with each Application for Payment. Identify changes since previous submittal.
 - a. Distribute copies of revised schedules to affected parties.
 - b. Issuance of Certificate for Payment is conditioned upon receipt of an updated Construction Schedule with each Application for Payment.
 - 5. Compliance will be monitored and enforced by review of Construction Schedule. Unless otherwise indicated, failure to comply with Construction Schedule requirements is subject to reduction in amounts certified on subsequent Applications for Payment.
- D. Submittal Schedule: Provide Submittal Schedule for Product Data, Shop Drawings, and Samples to Architect coordinated with Construction Schedule for submittals and Architect's review period.
 - 1. Coordinate submittals of related items.
 - 2. Updates: Submit revised Submittal Schedule when changes occur and identify those changes since previous Submittal Schedule.
- E. Schedule of Values: Submittal as defined in General Conditions of Contract and this Section required before first Application for Payment.

- 1. Submit Schedule of Values on AIA Form G703. Contractor's standard computerized forms will be considered on request.
- 2. Format: Table of Contents of this Project Manual. Identify each line item with Specification Section number and title.
 - a. Provide separate line item for labor and materials for each Work category.
 - b. On separate line items identify Contractor's fee, general conditions, permits, and contingency.
- 3. Updates: Submit revised Schedule of Values with each Application for Payment. Identify changes since previous submittal.
 - a. Applications for Payment will not be processed until Schedule of Values has been reviewed and accepted.
 - b. Revise Schedule of Values to list executed Change Orders. Keep Change Order amounts on separate line item until completion of Change Order Work.
 - c. At application for final payment, distribute executed Change Order amounts into appropriate line items.
- F. Application for Payment: As defined in General Conditions of the Contract and Section 01 29 00.
- G. Subcontractors and Materials List: Submit Subcontractors and Materials List.
 - 1. Include only products included in original Bidding Documents, Addenda, and other Modifications.
 - 2. Subcontractors: Provide names, addresses, and telephone numbers of indicating by Specification Section number Work to be performed by each.
 - 3. Material Suppliers: Provide names, addresses, and telephone numbers, indicating by Specification Section number Work to be performed by each.
 - 4. Provide identification of materials and equipment by brand and model including.
 - a. Items proposed in compliance with specified reference standards.
 - b. Items proposed in compliance with descriptive specifications where a proprietary product is not indicated.
 - c. Items proposed in compliance with proprietary specifications.
- H. Before Work is started, file or record Construction Contract with proper county or state officials if such filing is required. Provide Owner with certification indicating filing has been accomplished or is not required.

1.3 PRODUCT DATA, SHOP DRAWINGS, AND SAMPLE SUBMITTALS

- A. Product Data: Submit not less than the following information.
 - 1. Manufacturer's specifications and technical data including performance, construction, and fabrication.
 - 2. Clearly mark each copy to identify pertinent products or models.
 - 3. Show performance characteristics and capacities.
 - 4. Show dimensions and clearances required.
 - 5. Modify drawings and diagrams to delete information that is not applicable to this Project.
- B. Shop Drawings: Submit not less than the following information in a clear and thorough manner. Do not reproduce Contract Documents for use as Shop Drawings.
 - 1. Identify details by reference to sheet and detail, schedule, or room numbers indicated on Contract Drawings.
 - 2. Clearly show how product is to be incorporated into Project through Drawings, such as elevations, plans, sections, and details.
- C. Samples: Submit not less than the following information.
 - 1. Submit colors, textures, and patterns for selection.
 - 2. Submit Samples to illustrate functional characteristics of product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing Work.
 - 3. Include identification on each Sample, giving full information.

1.4 QUALITY ASSURANCE SUBMITTALS

- A. Submit per Section 01 43 00.
 - 1. Certificate of Manufacturer's Qualifications: Submittal required to document manufacturers' qualifications required in individual Specification Sections.
 - 2. Certificate of Installer's Qualifications: Submittal required to document installers' qualifications required in individual Specification Sections.
 - 3. Professional Certification: Submittal required to document professional certification of portions of Work required by Contract Documents.
- B. Source Quality Control: Tests and certifications as described in Source Quality Control Article in Part 2 of Specification Sections.
 - 1. Material Qualification Test: Submittal required directly from testing lab to indicate a proposed material complies with Contract Document requirements.
 - 2. Field Quality Control: Tests and certifications as described in Field Quality Control Article in Part 3 of Specification Sections within Contract Documents.
 - 3. Soils Engineer Certification: Submittal required from Soils Engineer or Soils Engineer's authorized technician indicating confirmation of required inspection and observed required by Contract Documents.

1.5 CONTRACT CLOSEOUT SUBMITTALS

A. Submit per Section 01 77 00.

1.6 PROCEDURES FOR SUBMITTING

- A. Timeline for Submittals: Transmit submittals within timeframe to prevent delay in construction activities or compromise review process. Comply with the following requirements.
 - Administrative (Project Start-up) Submittals: Submit not more than 30 days after Award of Contract.
 a. Schedule of Values: Submit not less than 30 days before first application of payment.
 - 2. Product Data, Shop Drawings, and Sample Submittals: Submit prior to starting fabrication and per Submittal Schedule.
 - 3. Quality Control Submittals: Make submittals promptly to not cause construction delay.
- B. Transmittal: Accompany submittals with completed Submittal Transmittal Form, Document 00 62 00.
- C. Failure to comply may result in return of submittal without review.
- D. Submit electronic files of Show Drawings. Submit copies as specified herein unless indicated otherwise in other Specifications Sections.
 - 1. Product Data.
 - 2. Shop Drawings.
- E. Submit 2 samples of color charts of products that are called out to be submitted.
- F. Locate the following information on each submittal where practical and on accompanying transmittal.
 - 1. Date of submission and dates of previous submissions.
 - 2. Project title.
 - 3. Contract identification.
 - 4. Names of Contractor, supplier, manufacturer.
 - 5. Identification of products with reference to Specification Section number, including Material ID Code or paragraph number.
 - 6. Reference to Drawing numbers.
 - 7. Field dimensions required for communicating Design Intent.
 - 8. Relation to adjacent or critical features of Work.
 - 9. Applicable standards.

SUBMITTAL PROCEDURES

- 10. Identification of deviations from Contract Documents.
- 11. Identification of revisions on resubmittals.
- 12. 4 inch by 5 inch blank space for Contractor's and Architect's stamps.
- 13. Contractor's stamp, Subcontractor's stamp as applicable, initialed or signed, certifying prior review of submittal, verification of products, field measurements, field construction criteria, and coordination of information within submittal with requirements of Work and of Contract Documents.
 - a. Submittals not signed and dated by Contractor will be returned without review.
- G. Provide submittals for each portion of Work that are complete and accurate. Incomplete or partial submittals will be rejected and will require resubmittal.
 - 1. Submittals may be made of portions of Work, but make certain that each submittal is complete in respect to information necessary for proper review by Architect and Architect's consultants.
 - 2. Combine submittals to ensure "design intent" of system assembly.
 - 3. Cross out non-related material to submittal.
- H. Product Data, Shop Drawings, Samples, and Quality Control Submittals:
 - 1. Determine and verify:
 - a. Field measurements.
 - b. Field construction criteria.
 - c. Catalog numbers and similar data.
 - d. Conformance with Contract Documents.
 - e. Coordination with other Work.
 - 2. Coordinate each submittal with requirements of Work, Construction Schedule, and Contract Documents.
 - 3. Notify Architect in writing, at time of submittal, of deviations in submittals from requirements of Contract Documents.

1.7 PROCEDURE FOR REVIEWING

- A. General: Make submittals far enough in advance of dates scheduled for installation to provide time required for reviews; for possible revisions and resubmittals; and for placing orders and securing delivery.
- B. Architect's Review Time: In scheduling, allow at least 14 calendar days for review by Architect following Architect's receipt of submittal or as otherwise may be required under each Specification Section. Allow an additional 10 days for reviews involving Architect's consultants, or as otherwise may be required under each Specification Section.
- C. Submittals will be reviewed by Architect with the following actions:
 - 1. "Reviewed" indicates submittal conforms to "design intent" of Work. Contractor, at Contractor's discretion, may proceed with fabrication, procurement, and installation.
 - 2. "Make Corrections Noted" indicates submittal, after indicated corrections are made, would conform to "design intent" of Work. Contractor, at Contractor's discretion, may proceed with fabrication, procurement, and installation.
 - 3. "Revise and Resubmit" indicates noted revisions are such that a corrected copy is required for review to confirm revisions have been understood and made. Contractor, at Contractor's discretion, may proceed with fabrication, procurement, and installation. Contractor is responsible for correctly interpreting and implementing revisions.
 - 4. "Rejected" indicates submittal does not conform to "design intent". Resubmittal is required.
- D. Review by Architect of submittals is not an authorization for Change Order. Follow procedures described elsewhere in Contract Documents for Items requiring Change Order.

1.8 PROCEDURE FOR RESUBMITTING

- A. Make corrections or changes in submittals required by Architect and resubmit when Architect's stamp requires resubmittal.
- B. Resubmittal Review Fees: If Architect rejects (Rejected, Revise and Resubmit) Contractor's submittal more than 2 times for same Specification Section, Architect will be compensated for additional reviews.
 - 1. Amount of such compensation will be incorporated by Change Order and deducted from Contractor's Application for Payment.
- C. Shop Drawings and Product Data: Revise initial drawings or data, and resubmit as specified for initial submittal.
 - 1. Clearly identify changes made other than those requested by Architect by "clouding" or other suitable means acceptable to Architect. Only changes that are "clouded" and changes requested by Architect will be reviewed on resubmittal. Architect is not responsible for reviewing resubmittals that are not "clouded" on resubmittal.
- D. Samples: Submit new samples as required for initial submittal.
- E. Contractor is responsible for delays caused by resubmittal process.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 SCHEDULE OF REQUIRED SUBMITTALS

A. General: The following lists of submittals are prepared for convenience of Contractor and may not be complete listing. Designation in parentheses is AIA Document number for submittal to be used. Other forms are noted when required.

1.0 PRIOR TO AWARD:

- 1.1 List of Subcontractors and/or suppliers and manufacturers
- 1.2 Contractor's Qualification Statement (A305) if requested

2.0 PRIOR TO CONTRACT EXECUTION:

- 2.1 Performance/Labor and Material Bond (A311)
- 2.2 Certificate of Insurance
- 2.3 Additional submittals as may be required by Contract Documents or requested by Owner or Architect

3.0 WITHIN TEN DAYS AFTER CONTRACT EXECUTION:

- 3.1 Detailed cost breakdown on application for payment form G703, breakdown per Specification Sections with labor and material separated
- 3.2 Name of Project superintendent
- 3.3 Additional submittals as may be required by Contract Documents or requested by Owner or Architect

4.0 MONTHLY APPLICATION FOR PAYMENT:

- 4.1 Application and Certificate for Payment G702 and G703
- 4.2 Partial lien waivers if requested

5.0 AS WORK PROGRESSES:

- 5.1 Shop Drawings and Samples (See C-02 for quantities)
- 5.2 Instructions
- 5.3 Manuals
- 5.4 Guarantees
- 5.5 Test Results
- 5.6 Additional submittals as may be required by Contract Documents

6.0 PRIOR TO FINAL PAYMENTS:

- 6.1 Application and Certificate for Payment (G702 & G703 latest edition)
- 6.2 Consent of Surety Company to Final Payment (G707)
- 6.3 Contractor's Affidavit of Payment of Debts & Claims (G706A)
- 6.4 Contractor's Affidavit of Release of Liens (G706A)
- 6.5 Waivers of lien from Subcontractors and materials
- suppliers, "Standard Form"
- 6.6 Additional submittals as may be required by Owner or Architect.

SECTION 01 43 00 - QUALITY ASSURANCE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Prerequisites and procedures to assure quality of construction, field observation, and tests performed by manufacturer's representatives during installation.
 - 1. Manufacturer's Instructions.
 - 2. Manufacturer's Certificates.
 - 3. Manufacturer's Field Services

1.2 QUALITY ASSURANCE

- A. Specific naming of codes or standards occurs on Drawings and in other Specifications Sections of these. Comply with laws, ordinances, and regulations of authorities having jurisdiction. Proof of compliance shall be signed approval by respective authorities having jurisdiction.
- B. Familiarity with Pertinent Codes and Standards: Verify that requirements of specifically named codes and standards are met, as well as requirements mandated by law, ordinance, and authority. Verify that items procured and installed in this Work meet or exceed specified requirements.
- C. Rejection or Non-Complying Items: Architect reserves the right to reject items incorporated into Work that fails to meet such minimum requirements.

1.3 MANUFACTURER QUALIFICATIONS

A. Company specializing in manufacture of products specified in this Section with a minimum of 5 years documented experience, unless noted otherwise.

1.4 FABRICATOR QUALIFICATIONS

A. Company specializing in fabrication of products specified in this Section with a minimum of 5 years documented experience, unless noted otherwise.

1.5 INSTALLER QUALIFICATIONS

- A. Company specializing in installation of products specified in this Section with a minimum of 5 years documented experience, unless noted otherwise, certified in writing by manufacturer that installer is approved to install manufacturer's products.
- B. Manufacturer's authorized representative who is trained and approved for both installation and maintenance of units required for this Project.

1.6 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual Specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, adjusting, and finishing in quantities specified for Product Data.
- B. Identify conflicts between manufacturers' instructions and Contract Documents.

1.7 MANUFACTURER'S CERTIFICATES

- A. When specified in individual Specification Sections, submit manufacturers' certificate to Architect for review in quantities specified for Product Data.
- B. Indicate that material or product conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.
- C. Certificates and previous test results on material or products may be recent but must be acceptable to Architect.

1.8 MANUFACTURER'S FIELD SERVICES

- A. Submit qualifications of manufacturer's observer to Architect 30 days in advance of required observations. Observer is subject to approval of Architect.
- B. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, testing, adjusting, and balancing of equipment as applicable, and to initiate instructions when necessary.
- C. Observers shall report observations and site decisions, or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Submit report in duplicate for Architect's review within 10 days of observation.

1.9 QUALITY ASSURANCE 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 fully with manufacturers' instructions, including each step-in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as a minimum quality for Work, except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce workmanship of specified quality.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
- G. Readjust Work performed that does not meet technical or design requirements but make no deviation from Contract Documents without specific and written approval from Architect.

1.10 FIELD SAMPLES

- A. Install field samples at Project site as required by individual Specifications Sections for review by Architect.
- B. Acceptable samples represent a quality level for Work.
- C. Where field sample is specified in individual Sections to be removed, clear area after Architect has accepted field sample.
- PART 2 PRODUCTS NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

QUALITY ASSURANCE

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, but not limited to:
 - 1. Building Code Requirements.
 - 2. Health and Safety Regulations.
 - 3. Utility Company Regulations.
 - 4. Police Department, Fire Department, and Rescue Squad Rules.
 - 5. Environmental Protection Regulations.
 - 6. Occupational Safety and Health Administration.
- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library, "Temporary Electrical Facilities".
 - 1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Service", prepared jointly by AGC and ASC, for industry recommendations.
 - 2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electrical service. Install service per National Electric Code (NFPA 70).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.2 PROJECT CONDITIONS

- A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities or permit them to interfere with progress. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on Project site.
- B. When disruption of existing service is required, do not proceed without Owner's and Architect's review. Provide alternate temporary service, when required.
- C. Environmental Requirements: Provide and maintain heat, fuel, materials, and services necessary to protect Work and materials against injury from extreme heat, cold, dry winds, dust, or dampness as follows:
 - 1. During performance of Work, provide sufficient heat to ensure heating of spaces meets requirements of individual Specification Sections.
 - 2. Suspend operations on Work when subject to damage by climatic conditions, flooding, or because of insufficient curing or drying of surfaces or materials.
 - 3. Take necessary action to protect site and Work from wind, flood, and storm damage.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials. If acceptable to Architect, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for use intended.

2.2 EQUIPMENT

- A. General: Provide new equipment or undamaged previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.
- B. Electrical Power Cords: Grounded extension cords. Use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress.
- C. First Aid Supplies: Comply with local and governing regulations.
- D. Fire Extinguishers: Hand-carried, portable, UL-rated, Class "A" fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried portable, UL rated, Class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for exposures.
 - 1. Comply with NFPA 10 and 241 for classifications, extinguishing agent and size required by location and class of fire exposure.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Locate facilities where they serve Project adequately and result in minimum interference with performance of Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY ELECTRICITY

- A. Contractor may connect to Owner's existing power service. Power consumption shall not disrupt Owner's need for continuous service.
- B. Owner will pay for cost of energy used. Exercise measures to conserve energy. Owner will backcharge Contractor if waste is observed.

3.3 TEMPORARY FIRE PROTECTION

- A. Fire Extinguishers: Provide hand-carried, portable UL rated, Class A fire extinguishers for temporary Offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for fire exposures in sufficient quantity to comply with applicable safety regulations.
 - 1. Comply with NFPA 10 and 241 for classifications, extinguishing agents, and sizes required by location and class of fire exposure.

3.4 PROTECTION OF EXISTING FACILITIES

- A. Contractor, Subcontractors, or employees under their jurisdiction, will be responsible for damages to roofing, sheet metal, and roof structure while performing Work on roof.
- B. Carefully supervise Work to prevent injury to trees and plants that are to remain on property, and replace trees and plants that are damaged or destroyed due to construction operations.
- C. Provide construction aids and equipment required by personnel and to facilitate execution of Work. Provide staging, runways, platforms, railings, trash containers, and other such equipment.

3.5 TEMPORARY SANITARY FACILITIES

A. Provide portable toilet, coordinate location with Owner.

3.6 FIRST AID

A. Provide complete first aid kit and supplies for emergency purposes and have a qualified person on staff capable of rendering basic first aid requirements.

3.7 TEMPORARY BARRIERS

- A. Provide temporary 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 by construction operations and demolition.
- B. Protect non-owned vehicular traffic, stored materials, and existing structures from damage.

3.8 ROADS, PARKING, AND TRAFFIC CONTROL

- A. Maintain site access roads within construction limits including areas to receive hoists and cranes, scaffolds, platforms, and other construction materials. Inclement weather may require additional grading, fill, rock base, or other measures.
 - 1. Coordinate location of temporary roads, storage areas, and parking areas with other contractors Subcontractors.
 - 2. Provide and maintain access to fire hydrants, free of obstructions.
 - 3. Provide means of removing mud from vehicle wheels before entering public streets.
- B. Maintain existing sidewalks on public property.
- C. Site parking may be utilized at locations as directed by Owner to accommodate construction personnel.

3.9 SECURITY MEASURES

- A. Provide security and facilities to protect Work and Owner's operations from unauthorized entry, vandalism, or theft.
 - 1. Coordinate with Owner's security program.

3.10 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual Specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate Work areas to minimize damage.
 - 1. Provide protective coverings at walls, projections, jambs, sills, ceilings, and soffits of openings.
 - 2. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects by protecting with durable sheet materials.
 - 3. Prohibit traffic from landscaped areas.

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 GENERAL

- A. Material and Equipment Incorporated into Work:
 - 1. Conform to applicable Specification Section and standards.
 - 2. Comply with size, make, type, and quality specified.
- B. Manufactured and Fabricated Products:
 - 1. Design, fabricate, and assemble per industry standard engineering and shop practices.
 - 2. Manufacture like parts of duplicate units to standard sizes and gauges for interchangeability.
 - 3. Two or more items of same kind shall be identical, by same manufacturer.
- C. Supplementary materials not specifically described in each Section, but required for complete and proper installation of Work, shall be new, first quality of their respective kinds, and subject to review and acceptance by Architect.

1.2 DEFINITIONS

- A. Products: Items purchased for incorporation into Work, whether purchased for Project or taken from previously purchased stock.
 - 1. Includes terms material, equipment, systems, machinery, components, fixtures, and terms of similar intent for incorporation into Work.
 - 2. Does not include machinery and equipment used for preparation, fabrication, conveying, and erection of Work. Products may also include existing materials or components required for reuse.
 - 3. Named Products: Items identified by manufacturer's product name, including make or model designation, indicated in manufacturer's published product literature, that is current as of date of Contract Documents.
- B. Materials: Products that are substantially shaped, cut, worked, mixed, finished, refined, or otherwise fabricated, processed, or installed to form part of Work.
- C. Equipment: Products with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.3 QUALITY ASSURANCE

- A. Source Limitations: Provide products of same kind, from single source, to fullest extent possible.
- B. Compatibility of Options: When Contractor is given option of selecting between 2 or more products for use on Project, select products compatible with products previously selected, even if previously selected products were also options.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on exterior.
 - 1. Labels: Locate required product labels and stamps on concealed surface, or where required for observation after installation, on accessible surface that is not conspicuous.

1.4 BASIC PRODUCT REQUIREMENTS

- A. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- B. Provide interchangeable components of same manufacturer, for similar components.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Products meeting those standards or description.
- B. Products Specified by Naming one or More Manufacturers: Products of manufacturers named and meeting Specifications, no options or substitutions allowed.
- C. Products Specified by Naming one or More Manufacturers With Provision for Substitutions: Submit request for substitution for manufacturers not named.

1.6 PRODUCT SUBSTITUTION PROCEDURES

A. Product Substitution Procedures: Refer to Section 01 25 03.

1.7 OWNER-FURNISHED PRODUCTS

A. Refer to Section 01 11 0 - Summary of Work.

1.8 PRODUCT TRANSPORTATION AND HANDLING REQUIREMENTS

- A. Transport and handle products per manufacturer's written instructions.
- B. Promptly inspect shipments to assure that 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.
- D. Arrange deliveries of products per construction schedules and in ample time to facilitate inspection prior to installation.
- E. Coordinate deliveries to avoid conflict with Work and conditions at site, taking into consideration:
 - 1. Work of Contractor or Owner.
 - 2. Limitations of Storage Space
 - 3. Availability of equipment and personnel for handling products.
 - 4. Owner's use of premises.
- F. Deliver products in undamaged condition in original containers or packaging, and with identifying labels intact and legible.
- G. Clearly mark partial deliveries of component parts of equipment to identify the equipment, to permit easy accumulation of parts, and to facilitate assembly.
- H. Immediately on delivery, inspect shipment to ensure:
 - 1. Product complies with requirements of Contract Documents and reviewed submittals.
 - 2. Quantities are correct.
 - 3. Containers and packages are intact and labels are legible.
 - 4. Products are undamaged and properly protected.
- I. Architect reserves the right to observe delivered materials, to review accompanying bills of lading, and to reject the following:

PRODUCT REQUIREMENTS

- 1. Materials not identifiable as accepted products of accepted manufacturer.
- 2. Materials exhibiting shelf lives in excess of those stipulated by manufacturer.
- 3. Materials not bearing appropriate label of Underwriters Laboratories (UL), where applicable.
- 4. Materials in opened or excessively damaged containers.
- 5. Materials exhibiting evidence of moisture, organic matter, or other adulterants.
- J. In event of damage or rejection by Architect for stipulated cause, immediately make repairs and replacements necessary to acceptance of Architect and at no additional cost to Owner.
- K. Do not request Owner to sign for and accept deliveries. Only Contractor may perform this task.

1.9 PRODUCT STORAGE AND PROTECTION REQUIREMENTS

- A. Store and protect products per manufacturer's written instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Provide secure off-site storage and protection when site does not permit on-site storage or protection. Provide Architect with complete inventory of off-site stored items, and provide certificate of insurance for stored items.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with Contract Documents, that are undamaged and, unless otherwise indicated, unused at time of installation.
 - 1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for complete installation and for intended use and effect.
- B. Standard Products: Provide standard products of types that have been produced and used successfully in similar situations on other projects and fully comply with requirements of Contract Documents.
- C. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select product and manufacturer that comply with other specified requirements. Architect will select color, pattern, and texture from product line selected.

PART 3 - EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
- B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

PRODUCT REQUIREMENTS

St. Cloud HRA Westwood Village Apartments I & II Roof Replacement St. Cloud, MN

SECTION 01 70 00 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 SYSTEM DESCRIPTION

- A. Performance Requirements:
 - 1. Cutting and Patching:
 - a. Structural Work Requirements: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.
 - b. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.
 - c. Visual Requirements: Do not cut and patch construction exposed on exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

1.2 QUALITY ASSURANCE

A. In preparing data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of described items, completely familiar with requirements of this Section, and skilled in technical writing to extent needed for communicating essential data.

PART 2 - PRODUCTS

2.1 PATCHING MATERIALS

A. New Materials: As specified in Sections; match existing products and Work for patching and extending Work.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which Work of this Section will be performed. Correct conditions detrimental to timely and proper completion of Work. Do not proceed until unsatisfactory conditions are corrected.
- B. Each trade is responsible for examining substrates related to that trade's Work. Notify Contractor and Architect of unacceptable conditions.
- C. Commencement of Work indicates acceptance of conditions. Corrections required because of incomplete substrate examination or improper substrate conditions will be corrected at no cost to Owner.

3.2 CUTTING AND PATCHING

- A. Each trade is responsible for cutting and patching required for their portion of Work.
- B. Execute cutting, fitting, and patching, including excavation and backfill, to complete Work, and to:1. Fit parts together, to integrate with other Work.

EXECUTION REQUIREMENTS

- 2. Uncover Work to install 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.
- C. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- D. After uncovering, inspect conditions affecting performance of Work.
- E. Beginning of cutting and patching means acceptance of existing conditions affecting performance of Work.
- F. Provide supports to assure structural integrity of surroundings, and devices and methods to protect other portions of Project from damage.
- G. Provide protection from elements for areas that may be exposed by uncovering Work; maintain excavations free of water.
- H. Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- I. Cut rigid materials using masonry saw or core drill. Pneumatic tools are not allowed without prior written approval.
- J. Restore Work with new products, using people skilled in relevant trades, per requirements of Contract Documents.
- K. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- L. At penetrations through fire-rated walls, ceilings, or floor construction, completely seal voids with fire-rated materials, full thickness of construction element per requirements of Section 07 84 00 Firestopping.

3.3 REPAIR/REPLACEMENT OF DAMAGED WORK

- A. Protection of finished Work shall not relieve Contractor of his responsibility to repair or replace Work damaged by elements or by subsequent construction operations.
- B. Decisions on whether damaged Work will be repaired or replaced will be based on requirements that finished Work meets requirements specified for Work as covered in applicable Sections of this Specification; that is, if damaged Work cannot be repaired so that it matches new, undamaged Work, then it shall be replaced.
- C. In refinishing repaired or replaced Work, refinish entire surfaces as necessary to provide an even finish to match adjacent finishes. Use only workers skilled in trades relevant to materials and assemblies that require repairing or replacing.
 - 1. For continuous surfaces refinish to nearest intersection.
 - 2. For an assembly refinish entire unit.

3.4 EXISTING UTILITIES OR SERVICES

- A. Provide protection to prevent damage or interference to existing utility or service lines and mains.
- B. If there is damage to known existing utility or service line or main, responsible party shall repair or have damage repaired as directed by utility or service company, without additional cost to Contract.
- C. If unknown utility or service line or main is uncovered, stop Work in that area and notify utility or service company, Architect, and Owner to obtain information on how to proceed.

3.5 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual Specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- E. Prohibit traffic from landscaped areas.

SECTION 01 74 00 - CLEANING

PART 1 - GENERAL

1.1 QUALITY ASSURANCE

- A. Inspections: Conduct daily inspections, more often if necessary, to verify that requirements of cleanliness are being met.
- B. Codes and Standards: In addition to requirements specified herein, comply with pertinent requirements of authorities having jurisdiction.
- C. Use only a professional cleaning company experienced in commercial cleaning for final cleaning.

1.2 PAYMENT WITHHELD

A. Architect reserves the right to withhold certification of payment requests for failure on part of Contractor to regularly clean Project per requirements of this Section.

PART 2 - PRODUCTS

2.1 TRASH CONTAINERS

- A. Provide trash container service to remove rubbish from Project site. Determine locations of trash containers.
- B. Deposit rubbish in trash containers. Break down bulky materials (that is; crates, cartons, ductwork, and similar waste) to minimum volume before depositing them in trash containers. Segregate materials per requirements of trash container service. If materials aren't segregated per these requirements, then additional cost of non-segregated materials will be back-charged to Contractor at no additional cost to Owner.
- C. Deposit rubbish per applicable laws and regulations of regulatory agency having jurisdiction. Perform disposal of waste materials not permitted in trash containers, such as tires, paints, and similar waste.
- D. Burning of refuge on Project site is not allowed.
- E. Remove, hammer in, or bend over flush protruding nails or screws in boards, planks, timbers, etc.

2.2 CLEANING UP

A. All trades are required to participate in clean-up procedures.

2.3 COMPATIBILITY

A. Use cleaning materials and equipment that are compatible with surfaces being cleaned, as recommended by manufacturer of material to be cleaned.

PART 3 - EXECUTION

3.1 PROGRESS CLEANING

- A. General:
 - 1. Retain stored items in orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing required protection of materials.
 - 2. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
 - 3. Weekly, and more often if necessary, remove scrap, debris, and waste material from Project site.
 - 4. Provide adequate storage for items awaiting removal from Project site, observing requirements for fire protection and protection of ecology.
 - 5. Maintain Project site in neat and orderly condition.
 - 6. As required preparatory to installation of succeeding materials, clean structures, or pertinent portions thereof, to degree of cleanliness recommended by manufacturer of succeeding material, using equipment and materials required to achieve required cleanliness.
 - 7. Following installation of finish floor materials, clean finish floor daily, and more often if necessary, and while Work is being performed in spaces in which finish materials have been installed.
 - a. Clean, for the purpose of this subparagraph, means free from foreign material that, in opinion of Architect, may be injurious to finish floor material (vacuum clean).

3.2 FINAL CLEANING

- A. Perform final cleaning of Project site and structure.
- B. Clean, for the purpose of this Article, means level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials, (Scrub and polish clean).
- C. General: Remove from Project job site tools, surplus materials, equipment, scrap, debris, and waste prior to completion of Work. Conduct final progress cleaning as described above.
- D. Site: Water and broom clean paved areas on Project site and public paved areas directly adjacent to Project site, unless otherwise directed by Architect. Remove resultant debris.
- E. Timing: Schedule final cleaning as accepted by Architect to enable Owner to accept completely clean Project.

SECTION 01 77 00 - CLOSEOUT PROCEDURES AND SUBMITTALS

PART 1 - GENERAL

1.1 QUALITY ASSURANCE

A. Prior to requesting inspection by Architect, use adequate means to assure that Work is completed per specified requirements and is ready for requested inspection.

1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Prior to requesting inspection for certification of Substantial Completion, complete the following (List exceptions in the request):
 - 1. In Application for Payment that coincides with, or first follows, date Substantial Completion is claimed, showing 100 percent completion for portion of Work claimed as substantially complete. Include supporting documentation for completion as indicated in Contract Documents and statement showing accounting of changes to Contract Sum.
 - a. If 100 percent completion cannot be shown, include list of incomplete items, value of incomplete construction, and reasons Work is not complete.
 - 2. Advise Owner of pending insurance change-over requirements.
 - 3. Obtain and submit releases enabling Owner unrestricted use of Work and access to services and utilities; include occupational permits, operating certificates, and similar releases.
 - 4. Make final change-over of permanent locks and transmit keys to Owner. Advise Owner's personnel of change-over in security provisions.
 - 5. Complete start-up testing of systems, and instruction of Owner's operating and maintenance personnel.
 - 6. Discontinue or change-over and remove temporary facilities from Project site, along with construction tools, mock-ups, and similar elements.

1.3 CONTRACT CLOSEOUT PROCEDURES

- A. At Substantial Completion, submit written certification to Architect that Contract Documents have been reviewed, Work has been inspected, and that Work is complete per Contract Documents and ready for Architect's inspection.
 - 1. Prepare comprehensive and complete list of corrective items, and verify that these items have been corrected prior to notifying Architect of completion. Make available copies of Contractor's list(s) to Architect upon request.
- B. Notify Architect in writing when Contractor feels Project is 100 percent complete and is ready to leave Project. Architect will then commence construction review and prepare a "Punch List", or list of minor corrective items to be issued to Contractor. For Owner's convenience, reviews may be phased for various portions of Work, as each distinct portion becomes 100 percent complete.
- C. Architect will arrange for consultants to make consultant's construction reviews. Contractor and principal superintendent, authorized to act on be half of Contractor, as well as principal Subcontractors that Architect may request to be present, shall accompany Architect, and possibly Architect's consultants, during construction reviews.
- D. Excessive amounts of corrective items, as judged by Architect, will be grounds to terminate construction review until such time as Contractor is deemed sufficiently complete to once again start the review. More than 4 minor items per typical room will be considered excessive. Cost of additional construction review visits will be backcharged to the contractor.

- 1. Contractor has 30 calendar days in which to complete items after receiving "Punch List" from Architect.
- E. Notify Architect, in writing, at least 7 days in advance of time of acceptance inspection after completion of "Punch List" Work.
- F. Contractor, superintendent, and principal Subcontractors that Architect may request to be present, shall accompany Architect on acceptance inspection.
 - 1. If Work has been completed per Contract Documents, and no further corrective measures are required, Architect will issue Certificate of Substantial Completion, and recommend that Owner accept Project and file Notice of Completion.
- G. Provide "Certificate of Occupancy" from jurisdiction or municipality where Project is located at time of Substantial Completion Inspection.
- H. Architect will develop Certificate of Substantial Completion Form (AIA Document G704), for signatures of Architect, Contractor, and Owner.
 - 1. Date of Substantial Completion starts warranty period for entire Project.
- I. Owner will occupy entire Project and premises on date of Substantial Completion.
- J. Comply with requirements of Substantial Completion Document, and notify Architect in writing when punch list items have been completed, and final inspection can be scheduled.
- K. Architect will accompany Contractor on Final Completion Inspection.

1.4 CONTRACT CLOSEOUT SUBMITTALS

- A. As part of final Application for Payment, submit lien waiver covering total amount of Contract.
- B. Submit lien waivers from every entity who may lawfully be entitled to file mechanics lien arising out of Contract, including Suppliers, Subcontractors, and/or Sub-subcontractors.
- C. Execute "Contractor's Affidavit of Payment of Debts and Claims" (AIA Document G706), and "Contractor's Affidavit of Release of Liens" (AIA Document G706A).
- D. Submit Final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due. Execute the "Consent of Surety Company to Final Payment" (AIA Document G707).
- E. Contractor Requirements Prior to Project Acceptance:
 - 1. Deliver certifications to Architect that no new materials containing asbestos or other hazardous materials have been included in Work.
 - 2. Remove temporary facilities and materials from site and building as specified in Section 01 50 00 Temporary Facilities and Controls.
 - 3. Thoroughly clean entire Project site of construction debris as specified in Section 01 74 10.
 - 4. Submit complete, signed Record Documents to Architect as specified in Section 01 78 39.
 - 5. Submit complete, signed Operation and Maintenance Data to Architect as specified in Section 01 78 23.
 - 6. Submit complete, signed Warranties and Bonds to Architect as specified in General Conditions and in Section 01 78 35.

PART 2 - PRODUCTS

2.1 MAINTENANCE MATERIALS

- A. Furnish maintenance materials to Owner in quantities specified in individual Specification Sections.
- B. Deliver maintenance materials to Owner's designated area on or prior to date of Substantial Completion. Provide Owner and Architect with a complete transmittal of inventory of items delivered.

PART 3 - EXECUTION - NOT USED

SECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 QUALITY ASSURANCE

A. In preparing data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of described items, completely familiar with requirements of this Section, and skilled in technical writing to extent needed for communicating essential data.

1.2 OPERATION AND MAINTENANCE DATA

- A. Submittal Procedures:
 - 1. Preliminary Procedures: Submit 1 copy of proposed manuals to Architect at least 15 days prior to final inspection for acceptance.
 - 2. Final Procedures: Following training and instruction of Owner's operating and maintenance personnel, review proposed revisions to manual with Architect.
 - a. Submit 1 copy & 1 CD of accepted data in final form 10 days after final inspection. Approval of submittal is pre-requisite for Substantial Completion.
- B. Format and Content of Manuals:
 - 1. Binders: Submit 2 commercial quality, 8-1/2 inch by 11 inch size, 3-ring binders in portfolio form, neatly edited, with similar equipment grouped, tabbed, and indexed. Materials shall be printed or typewritten. When multiple binders are used, correlate data into related consistent groupings.
 - 2. Covers: Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of Project, identity of separate structures as applicable, and subject matter of binder when multiple binders are required.
 - 3. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
 - 4. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on 30 pound white paper.
 - 5. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
 - 6. Part 2: Operation and maintenance instructions, arranged by system and subdivided 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 special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
 - 7. Part 3: Project documents and certificates, including the following:
 - a. Shop Drawings and Product Data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photocopies of warranties and bonds.
- C. Manual for Materials and Finishes:

- 1. Building Products, Applied Materials, and Finishes: Include Product Data with catalog number, size, composition, color, and texture designations. Provide information for re-ordering custom manufactured products.
- 2. 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.
- 3. Moisture Protection and Weather Exposed Products: Include Product Data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- 4. Additional Requirements: As specified in individual product Specification Sections.
- 5. Provide listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.
- D. Submittals:
 - 1. Comply with Section 01 33 00.
 - 2. Submit 1 copy of completed volumes in final form 15 days prior to final inspection to Architect. Copy will be returned after final inspection, with Architect comments. Revise content of documents as required prior to final submittal.
 - 3. Submit 1 copy & 1 CD of revised volumes of data in final form within 10 days after final inspection to Architect.

NOT USED

PART 3 - EXECUTION

NOT USED

SECTION 01 78 35 - WARRANTIES AND BONDS

PART 1 - GENERAL

1.1 DEFINITIONS

- A. Standard Product Warranties: Pre-printed written warranties published by individual manufacturers for particular products specifically endorsed by manufacturer to Owner.
- B. Special Warranties: Written warranties required by or incorporated into Contract Documents, either to extend time limits provided by standard warranties, or to provide greater rights for Owner.

1.2 WARRANTY AND BOND REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure, or that must be removed and replaced to provide access for correction of warranted Work.
- B. Re-Instatement of Warranty: When Work covered by warranty has failed and been corrected by replacements or rebuilding, reinstate warranty by written endorsement. Reinstated warranty shall be equal to original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by warranty has failed, replace or rebuild Work to an acceptable condition complying with requirements of Contract Documents. Contractor is responsible for cost of replacing or rebuilding defective Work regardless of whether Owner has benefited from use of Work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to Owner are in addition to implied warranties, and shall not limit duties, obligations, rights, and remedies otherwise available under law, nor shall warranty periods be interpreted as limitations on time in which Owner can enforce such other duties, obligations, rights, and remedies.
 - 1. Rejection of Warranties: Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of Contract Documents.
- E. Owner reserves the right to refuse to accept Work for Project where special warranty, certification, or similar commitment is required on such Work, or part of Work, until evidence is presented that entitles required to countersign such commitments are willing to do so.

1.3 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. When a special warranty is required to be executed by Contractor, or Contractor and Subcontractor, supplier, or manufacturer, prepare written document that contains appropriate terms and identification, ready for execution by required parties. Submit draft to Owner through Architect for approval prior to final execution.
 - 1. Refer to individual Specification Sections for specific content requirements, and particular requirements for submittal of special warranties.
- C. Form of Submittals:
 - 1. Bind in commercial quality, 8-1/2 inch by 11 inch, 3-ring side binders with hardback, cleanable, plastic covers.
 - 2. Label cover of each binder with typed or printed title "WARRANTIES AND BONDS", with title of Project; name, address, and telephone number of Contractor and equipment supplier; and name of responsible principal.

- 3. Table of Contents: Neatly typed, in sequence of Table of Contents of Project Manual, with each item identified with number and title of Specification Section in which specified, and name of product or Work item.
- 4. Separate warranties and bonds with index tab sheets keyed to Table of Contents listing. Provide complete information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer with name, address, and telephone number of responsible principal.
- D. Preparation of Submittals:
 - 1. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of applicable item or Work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial Completion is determined.
 - 2. Verify that documents are in proper form, contain full information, and are notarized.
 - 3. Co-Execute submittals when required.
 - 4. Retain warranties and bonds until time specified for submittal.
- E. Time of Submittals:
 - 1. Submit warranties and bonds for equipment, or component parts of equipment put into service during construction with Owner's permission, within 10 days after acceptance.
 - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, list date of acceptance as beginning of warranty period.
 - 4. Deliver manufacturer's warranties, guaranties, and bonds required by Contract Documents, to Architect, with Owner named as beneficiary. Where manufacturer's warranty or guarantee extends for longer time period than Contractor's warranty or guarantee, deliver manufacturer's warranties and guaranties in same manner.

NOT USED

PART 3 - EXECUTION

NOT USED

SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Requirements for Project Record Documents:
 - 1. Throughout progress of Work of Contract, maintain accurate record of changes and modifications in Contract Documents, as described below.
 - 2. Purpose of Record Documents is to provide factual information regarding Work, both concealed and visible, which will enable future modification of design to proceed without lengthy and expensive site measurement, investigation, and examination.

1.2 QUALITY ASSURANCE

A. Accuracy of Records: Thoroughly coordinate changes within Record Documents. Make adequate and proper entries in Specifications, Drawings, and other documents where such entry is required to properly show changes. Include "as-built" locations of site utilities shown on Drawings in diagrammatic way. Accuracy of records shall be such that future searches for items shown in Contract Documents may reasonably rely on information obtained from accepted Record Documents.

1.3 PAYMENT WITHHELD

A. Architect reserves the right to withhold certification of payment request for failure on part of Contractor to maintain Record Drawing in conformance with this Section.

1.4 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. General: Architect's review and approval of current status of Record Documents will be prerequisite to Architect's review of requests for progress payment and request for final payment under Contract.
- C. Progress Submittals: Secure Architect's review and approval of Record Documents as currently maintained prior to submitting each request for progress payment.
- D. Final Submittal: Submit final Record Documents to Architect and secure Architect's acceptance prior to submitting request for final payment.

1.5 PRODUCT HANDLING

- A. Maintain Record Documents in secure place in Contractor's job trailer. Protect Record Documents from deterioration and from loss and damage until completion of Work.
- B. In the event of loss of recorded data, use means necessary to again secure data to Architect's acceptance. Such means may include, if necessary in opinion of Architect, removal and replacement of concealing materials and, in such case, replacements shall be to standards originally specified in Contract Documents.

2.1 RECORD DOCUMENTS

- A. Contractor's Job Set: Secure from Architect at beginning of Work, at no charge to Contractor, 1 complete set of Contract Documents. Contractor's Job Set is for Contractor's own use to collect and record pertinent information on a daily basis.
- B. Record Documents Set: Secure from Architect at beginning of Work, at no charge to Contractor, 1 complete set of Contract Documents. Transfer information to this set in final form on a weekly basis. This Record Document Set will also be turned in as Final Record Documents.

PART 3 - EXECUTION

3.1 MAINTENANCE OF JOB SET

- A. Identification:
 - 1. Upon receipt of Job Set, identify documents with title "TEMPORARY RECORD DOCUMENTS: CONTRACTOR'S JOB SET".
 - 2. Upon receipt of Record Documents Set, identify appropriate to mylar media with title "RECORD DOCUMENTS" on each sheet of Drawings and on cover sheet of other documents.
- B. Preservation: Devise suitable method for protecting Job Set. Do not use Job Set for purposes other than entry of new data and for review by Architect upon request.
- C. Making Entries on Drawings:
 - 1. Job Set: Record information in clear and legible manner. Maintain Job Set on an ongoing basis. Record pertinent information and changes as they occur. Subcontractors are responsible for making entries as may be required under supervision of Contractor. Subcontractors shall date and sign their entries.
- D. Making Entries on Other Documents:
 - 1. Where directives issued by Architect cause changes, clearly indicate change by note, and reference approved Addenda and Change Orders.
 - 2. Where Contractor originated causes changes proposals reviewed by Architect, including inadvertent errors by Contractor that have been accepted by Architect, clearly indicate change by note.
 - 3. Make entries in pertinent documents as reviewed by Architect.
- E. Accuracy of Entries: Use proper instruments or tools for measurement as necessary, to determine actual locations of installed items.

3.2 FINAL RECORD DOCUMENTS

- A. Submit Job Set Drawings as supporting documentation to Final Record Document drawings. If Job Set drawings have been damaged during course of Work, secure new copy of document from Architect. Carefully transfer change data to new copy and obtain acceptance of Architect. Additional copies of Contract Documents will be charged to Contractor at Architect's cost of reproduction plus handling.
- B. If documents, other than drawings, have been kept clean successfully during progress of Work, and if entries have been sufficiently orderly thereon and reviewed by Architect, these documents will be accepted by Architect as final portion of Record Documents. If such document is not so accepted by Architect, secure new copy of that document from Architect at Architect's usual charge for reproduction and carefully transfer change data to new copy an obtain acceptance of Architect.

C. Review and Approval: Submit completed total set of Record Documents to Architect as described above. Participate in review meeting or meetings as required by Architect, make required changes in Record Documents, and promptly deliver final Record Documents to Architect.

3.3 CHANGES SUBSEQUENT TO ACCEPTANCE

A. Contractor is not responsible for recording changes in Work subsequent to acceptance of Work by Architect, except for changes resulting from replacements, repairs, and alterations made by Contractor as part of Contractor's guarantee. No additional changes will be allowed without approval of Architect.

SECTION 02 22 10 - SELECTIVE BUILDING COMPONENT DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

1.

- A. Section Includes:
 - Building Demolition and removal of the following:
 - a. Building components for new work.
 - b. Removal of existing shingles, roofing felt and ice and water barrier.
 - 2. Work does not include mechanical or electrical demolition.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or recycled.
- B. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or recycled.

1.3 QUALITY ASSURANCE

- A. Comply with Section 01 43 00.
- B. Demolition Firm Qualifications: An experienced firm specializing in demolition work similar in material and extent to that indicated for this Project with a minimum of 5 years experience in this type of work.
- C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Standards: Comply with ANSI A10.6 and NFPA 241.

1.4 PROJECT CONDITIONS

- A. Owner will maintain partial occupancy area during Work of this Project. There will be no classes during the construction schedule.
- B. Storage or sale of removed items or materials on-site is not permitted.

1.5 COORDINATION

A. Arrange demolition schedule so as not to interfere with Owner's and building manager's on-site operations.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Comply with Section 01 70 00.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of site and building demolition required.

3.2 PROTECTION

A. Existing Facilities: Protect adjacent walkways, building entries, and other building facilities during demolition operations.

3.3 DEMOLITION, GENERAL

- A. General: Demolish indicated existing building components completely. Use methods required to complete Work within limitations of governing regulations and as follows:
 - 1. Do not use cutting torches.
 - 2. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- B. Remove debris from elevated portions by chute, hoist or other device that will convey debris to grade level in controlled descent.

3.4 REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by building demolition operations.
- B. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
- C. Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

3.5 RECYCLING DEMOLISHED MATERIALS

- A. General: Separate recyclable demolished materials from other demolished materials to the maximum extent possible. Separate recyclable materials by type.
 - 1. Contractor to provide containers or other storage method for controlling recyclable materials until they are removed from Project site.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from demolition area. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Transport recyclable materials off Owner's property and legally dispose of them.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. Burning: Do not burn demolished materials.
- B. Disposal: Contractor to arrange to transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

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

SECTION 07 31 13 - ASPHALT SHINGLES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Asphalt shingles.
 - 2. Felt underlayment.
 - 3. Self-adhering sheet underlayment.
 - 4. Roof vents.
 - 5. Ridge vents.

1.2 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Product Data: For each product indicated.
- C. Samples: For asphalt shingles, ridge/hip vents, ridge and hip cap shingles, and roof vents.
- D. Product test reports.
- E. Research/evaluation reports.

1.3 QUALITY ASSURANCE

- A. Comply with Section 01 43 00.
- B. Source Limitations: Obtain ridge and hip cap shingles, shingles, felt underlayment, and self-adhering sheet underlayment through one source from a single asphalt shingle manufacturer.
- C. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
 - 1. Exterior Fire-Test Exposure: Class A; ASTM E 108 or UL 790, for application and roof slopes indicated.

1.4 WARRANTY

- A. Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace asphalt shingles that fail in materials within specified warranty period.
 - 1. Material Warranty Period: 30 years from date of Substantial Completion, prorated, with first 3 years nonprorated.

2.1 GLASS-FIBER-REINFORCED ASPHALT SHINGLES

- A. Conforming to ASTM D 3018 Type I Self-Sealing; UL Certification of ASTM D 3462, UL 997 Wind Resistance, and UL Class A Fire Resistance; glass fiber mat base; ceramically colored/UV resistant mineral surface granules across entire face of shingle; square three-tab type.
 - 1. Weight: 230 pounds per square.
 - 2. Color: As selected by Architect from manufacturer's standards.
 - 3. Acceptable Products:
 - a. Certainteed Roofing Products: Landmark 40
 - b. GAF Building Materials Corporation: Timberline 40 Series. {Royal Sovereign.]
 - c. Owens-Corning Roofing Products: Comparable product.
- B. Hip and Ridge Shingles: Manufacturer's standard units to match asphalt shingles. Fiberglass asphalt design, UL rated Class A.

2.2 UNDERLAYMENT MATERIALS

- A. Felts: ASTM D 226, Type No. 30, asphalt-saturated organic felts.
- B. Ice and Water Leak Barrier: Minimum 40-mil-thick, self-adhering, polymer-modified, bituminous sheet membrane, complying with ASTM D1970. Provide primer when recommended by underlayment manufacturer.
 - 1. Roll width: 36 inches.
 - 2. Acceptable products:
 - a. GAF Materials Corporation: WeatherWatch.
 - b. CertainTeed Corporation: WinterGuard.
 - c. Polyguard Products, Inc.: Polyguard Deck Guard.
 - d. Tamko Asphalt Products, Inc.:
 - e. Approved Substitutions. Moisture Guard.

2.3 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, or hot-dip galvanized steel wire shingle nails, minimum 0.120-inch- diameter, shank as recommended by shingle manufacturer, sharp-pointed, with a minimum 3/8-inch- diameter flat head and of sufficient length to penetrate 3/4 inch into solid wood decking or extend at least 1/8 inch through OSB or plywood sheathing.
 - 1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.
- C. Roof Vents:
 - 1. Ridge/Hip Vent: Manufacturer's standard rigid section high-density polypropylene or other UVstabilized plastic ridge vent with nonwoven geotextile filter strips; for use under ridge shingles.
 - a. Air Vent Inc., a CertainTeed Company: ShingleVent II.
 - b. GAF Materials Corporation: Cobra Rigid Vent II.
 - c. Owens Corning: VentSure Ridge Vent.
 - 2. Roof Vent Caps: Manufacturer's standard aluminum vent, with nonwoven geotextile filter strips; for use under ridge shingles. Color: Architect will select from manufacturer's standard color range.
 - a. The Solar Group: RV-51.
 - b. Owens Corning: RV1H.
 - c. Approved substitute.

D. Felt Underlayment Nails: Aluminum or hot-dip galvanized steel wire with low profile capped heads or disc caps, 1-inch minimum diameter.

2.4 METAL FLASHING AND TRIM

- A. Sheet Metal Flashing and Trim: Comply with Section 07 62 00 Sheet Metal Flashing and Trim.
 - 1. Sheet Metal: Flashing and trim not exposed to view:
 - a. Zinc-Coated Steel: Commercial quality with 0.20 percent copper, ASTM A526, except ASTM A527 for lock-forming, G90 hot-dip galvanized, minimum 24 gauge except as otherwise indicated.
 - 2. Sheet Metal: Flashing and trim exposed to view from grade level or upper floors.
 - a. Pre-Finished Zinc-Coated Steel: Minimum 24 gauge, hot-dip galvanized steel, commercial quality A1 S1 G90 extra smooth, primed on both sides and finished on 1 side with 70 percent KYNAR based fluorocarbon coating of minimum 0.70 mils total dry film thickness. Conform to tests for adhesion, flexibility, and longevity for finish as specified by KYNAR 500 finish supplier.
 - 1) Color: Architect will select from manufacturer's full range of standard colors.
 - 2) Strippable coating: Shop-applied liquid to front side of pre-finished metal to protect finish during fabrication, shipment, and field handling.
- B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Comply with Section 01 70 00.

3.2 UNDERLAYMENT INSTALLATION

- A. Single-Layer Felt Underlayment: Install single layer of felt underlayment on roof deck perpendicular to roof slope in parallel courses. Lap sides a minimum of 2 inches over underlying course. Lap ends a minimum of 4 inches. Stagger end laps between succeeding courses at least 72 inches. Fasten with roofing nails.
- B. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free, on roof deck. Comply with low-temperature installation restrictions of underlayment manufacturer if applicable. Install at locations indicated, lapped in direction to shed water. Lap sides not less than 3-1/2 inches. Lap ends not less than 6 inches staggered 24 inches between courses. Roll laps with roller. Cover underlayment within 7 days.
 Install self-adhering sheet underlayment a minimum of 8 feet inside of exterior wall lines
 - 1. Install self-adhering sneet underlayment a minimum of 8 feet inside of exterior wall

3.3 METAL FLASHING INSTALLATION

- A. General: Install metal flashings and other sheet metal to comply with requirements in Section 07 62 00 Sheet Metal Flashing and Trim
 - 1. Install metal flashings per recommendations in ARMA's "Residential Asphalt Roofing Manual" and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."

3.4 ASPHALT SHINGLE INSTALLATION

A. Install asphalt shingles per manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual," and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."

ASPHALT SHINGLES

- 1. Extend asphalt shingles 3/4 inch over fascia at eaves and rakes.
- B. Fasten asphalt shingle strips with a minimum of number of roofing nails located per manufacturer's written instructions.
- C. Roof and Ridge/Hip Vents: Install vents per vent manufacturer's written instructions. Install vents where indicated on Drawings.
- D. Ridge Cap Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.

SECTION 07 41 13 - METAL ROOF PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Factory-formed and field-assembled, standing-seam metal roof panels.

1.2 SYSTEM DESCRIPTION

- A. Performance Requirements:
 - 1. Wind-Uplift Resistance: Comply with UL 580 for wind-uplift resistance class indicated.
 - 2. Structural Performance: Capable of withstanding the effects of gravity loads and the following loads and stresses, based on testing according ASTM E 330:
 - a. Wind and Snow Loads. See Structural.

1.3 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Product Data: For each type of metal roof panel and accessory indicated.
- C. Shop Drawings: Show layouts of metal roof panels, including plans, elevations, sections, details, and attachments to other Work.
 - 1. Include details of edge conditions, joints and joint types, panel profiles, corners, anchorages, trim, flashings, closures, and accessories.
- D. Coordination Drawings: Drawn to scale and coordinating metal roof panel installation with penetrations and roof-mounted items.
- E. Samples: For each exposed finish.
- F. Material certificates.
- G. Field quality-control inspection reports.
- H. Product test reports.
- I. Maintenance data.

1.4 QUALITY ASSURANCE

- A. Comply with Section 01 43 00.
- B. Installer Qualifications: An employer of workers trained and approved by manufacturer.
 - 1. Installer's responsibilities include fabricating and installing metal roof panel assemblies and providing professional engineering services needed to assume engineering responsibility.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal roof panel assemblies that fail in materials or workmanship within specified warranty period.
 - 1. Failures include the following:

METAL ROOF PANELS

- a. Structural failures, including rupturing, cracking, or puncturing.
- b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
- 2. Warranty Period: 20 year system warranty from date of Substantial Completion.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal roof panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Fluoropolymer Finish Warranty Period: 25 years from date of Substantial Completion.

2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from one of the following manufacturers:
 - 1. AEP Span.
 - 2. Berridge Manufacturing Company.
 - 3. ColorKlad by Vincent Metals.
 - 4. UNA-Clad
 - 5. MM Systems Corporation.
 - 6. Pac-Clad Peterson Aluminum Corp.
 - 7. Copper Sales, Inc.
- B. Design Based on UNA -Clad UC-14 Roofing Panel with interlocking seam that snaps together.

2.2 METAL ROOF PANELS

- A. Vertical-Rib, Seamed-Joint, Standing-Seam Metal Roof Panels: Factory-formed, designed to be field assembled by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.
 - 1. Steel Panel Systems: Comply with ASTM E 1514.
 - 2. Material: Metallic-coated steel sheet, 0.0269 inch (22 gauge) thick. Steel sheet metallic coated by hotdip process and prepainted by coil-coating process to comply with ASTM A 755/A 755M.
 - 3. Surface: Smooth, flat finish.
 - 4. Exposed Finishes: High-Performance Organic Finish: 2-coat, thermocured system with fluoropolymer coats containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with physical properties and coating performance requirements of AAMA 2604:
 - a. Color: Selected by Architect from manufacturer's full standard color range.
 - 5. Concealed Finish: White or light-colored acrylic or polyester backer finish.
 - 6. Clips: Floating to accommodate thermal movement.
 - a. Material: Metallic-coated-steel sheet.
 - 7. Joint Type: Manufacturer's standard joint type.
 - 8. Panel Coverage: 18 inches (457 mm).
 - 9. Panel Height: 1.75 inches.
 - 10. Uplift Rating: UL 90.

2.3 UNDERLAYMENT MATERIALS

- A. Polyethylene Sheet: 6-mil- (0.15-mm-) thick polyethylene sheet complying with ASTM D 4397.
- B. Self-Adhering, Polyethylene-Faced Sheet: ASTM D 1970, 40 mils thick minimum, consisting of slip-resisting polyethylene-film reinforcing and top surface laminated to SBS-modified asphalt adhesive, with release-paper backing; cold applied.

METAL ROOF PANELS

C. Slip Sheet: Building paper, minimum 5 lb/100 sq. ft., rosin sized.

2.4 MISCELLANEOUS MATERIALS

- A. Fasteners: Self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs, and other suitable fasteners designed to withstand design loads. Provide exposed fasteners with heads matching color of metal roof panels by means of plastic caps or factory-applied coating.
 - 1. Fasteners for Roof Panels: Self-drilling or self-tapping 410 stainless or zinc-alloy steel hex washer head, with EPDM or PVC washer under heads of fasteners bearing on weather side of metal roof panels.
 - 2. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws with hex washer head.
 - 3. Blind Fasteners: High-strength aluminum or stainless-steel rivets.
- B. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil (0.4-mm) dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.
- C. Panel Sealants: Provide specified materials below as recommended by panel manufacturer.
 - 1. Sealant Tape: Pressure-sensitive, gray polyisobutylene compound sealant tape with release-paper backing; 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
 - 2. Joint Sealant: ASTM C 920; as recommended in writing by metal roof panel manufacturer.
 - 3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C 1311.

2.5 ACCESSORIES

- A. Roof Panel Accessories: Provide components required for a complete metal roof panel assembly including trim, copings, fasciae, corner units, ridge closures, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels, unless otherwise indicated.
 - 1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal roof panels.
 - 2. Clips: Minimum 0.0625-inch- thick, stainless-steel panel clips designed to withstand negative-load requirements.
 - 3. Cleats: Mechanically seamed cleats formed from minimum 0.0250-inch- thick, stainless-steel or nylon-coated aluminum sheet.
 - 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 metal roof panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.
- B. Flashing and Trim: Formed from 0.0179-inch- thick, metallic-coated steel sheet. Provide flashing and trim as required to seal against weather and to provide finished appearance. Locations include eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal roof panels.

2.6 FABRICATION

- A. General: Fabricate and finish metal roof panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
- C. Where indicated, fabricate metal roof panel joints with factory-installed captive gaskets or separator strips that provide a tight seal and prevent metal-to-metal contact, in a manner that will minimize noise from movements within panel assembly.

- D. Sheet Metal Accessories: Fabricate flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions, metal, and other characteristics of item indicated.
- E. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Comply with Section 01 70 00.

3.2 PREPARATION

A. Install flashings and other sheet metal to comply with requirements specified in Section 07 62 00.

3.3 UNDERLAYMENT INSTALLATION

- A. Polyethylene Sheet Underlayment: Install polyethylene sheet on roof sheathing under metal roof panels. Use adhesive for anchorage. Apply at locations indicated on Drawings, in shingle fashion to shed water, with lapped and taped joints of not less than 2 inches.
- B. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free, on roof sheathing under metal roof panels. Comply with temperature restrictions of underlayment manufacturer for installation; use primer rather than nails for installing underlayment at low temperatures. Apply at locations indicated on Drawings, in shingle fashion to shed water, with end laps of not less than 6 inches staggered 24 inches between courses. Overlap side edges not less than 3-1/2 inches. Roll laps with roller. Cover underlayment within 14 days.
- C. Apply slip sheet over underlayment before installing metal roof panels.

3.4 METAL ROOF PANEL INSTALLATION, GENERAL

- A. General: Provide metal roof panels of full length from eave to ridge, unless otherwise indicated or restricted by shipping limitations. Anchor metal roof panels and other components of Work securely in place, with provisions for thermal and structural movement.
 - 1. Field cutting of metal roof panels by torch is not permitted.
 - 2. Rigidly fasten eave end of metal roof panels and allow ridge end free movement due to thermal expansion and contraction. Predrill panels.
 - 3. Provide metal closures at peaks, rake edges, rake walls, and each side of ridge and hip caps.
 - 4. Flash and seal metal roof panels with weather closures at eaves, rakes, and at perimeter of openings. Fasten with self-tapping screws.
 - 5. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a 4-panel lap splice condition.
 - 6. Lap metal flashing over metal roof panels to allow moisture to run over and off the material.
- B. Fasteners:
 - 1. Steel Roof Panels: Use stainless-steel fasteners for surfaces exposed to the exterior and galvanized steel fasteners for surfaces exposed to the interior.
- C. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.

- 1. Coat back side of aluminum roof panels with bituminous coating where roof panels will contact wood, ferrous metal, or cementitious construction.
- D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal roof panel assemblies.
 - 1. Seal metal roof panel end laps with double beads of tape or sealant, full width of panel. Seal side joints where recommended by metal roof panel manufacturer.
 - 2. Prepare joints and apply sealants to comply with requirements in Section 07 92 00.

3.5 FIELD-ASSEMBLED METAL ROOF PANEL INSTALLATION

- A. Standing-Seam Metal Roof Panels: Fasten metal roof panels to supports with concealed clips at each standingseam joint at location, spacing, and with fasteners recommended by manufacturer.
 - 1. Install clips to supports with self-tapping fasteners.

3.6 ACCESSORY INSTALLATION

- A. General: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.
 - 1. Install components required for a complete metal roof panel assembly including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
 - 2. Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install Work with laps, joints, and seams that will be permanently watertight and weather resistant.

3.7 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal roof panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal roof panel installation, clean finished surfaces as recommended by metal roof panel manufacturer. Maintain in a clean condition during construction.