

PROJECT MANUAL
ROOFING REHABILITATION
HOMER GLEN PUBLIC WORKS GARAGE

4400 W 151ST STREET
HOMER GLEN, IL 60491



WJE No. 2023.2623.2

October 16, 2024

Architect/Engineer
WISS, JANNEY, ELSTNER ASSOCIATES, INC.
330 Pfingsten Road
Northbrook, Illinois 60062-2095
(847) 272-7400

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SECTION 00 01 15
LIST OF DRAWING SHEETS

Sheet Number	Title
A-001	Cover Sheet
A-201	Roof Plan
A-202	Roof Details
A-203	Roof Details

END OF SECTION

SECTION 00 11 16

INVITATION TO BID

PROJECT: Roofing Rehabilitation
Homer Glen Public Works Garage
14400 West 151st Street
Homer Glen, Illinois 60491

WJE No. 2023.0872

OWNER: Village of Homer Glen
14240 West 151st Street
Homer Glen, Illinois 60491

OWNER'S REPRESENTATIVE:

Bill Frossard
Facilities Coordinator
14240 W. 151st Street
Homer Glen, IL 60491
Telephone: 708.301.0632 ext: 140
Email: bfrossard@homerglenil.org

CONSULTANT: Wiss, Janney, Elstner Associates, Inc.
330 Pfingsten Road
Northbrook, Illinois
Telephone: 847.272.7400
Attn: Pat Shaughnessy, email: pshaughnessy@wje.com

MANDATORY PRE-BID MEETING:

Monday, November 4, 2024
9:00 AM
Homer Glen Public Works Garage, main entrance

BID DUE: Wednesday November 13, 2024, 2:00 PM

Submit sealed bids labeled "Roofing Rehabilitation-Homer Glen Public Works Garage" by the bid due date and time listed above to:

Bill Frossard
Facilities Coordinator
14240 W. 151st Street
Homer Glen, IL 60491

**RESPONSES RECEIVED AFTER THIS TIME WILL NOT BE ACCEPTED.
BIDS WILL BE OPENED IMMEDIATELY AFTER THE BID DUE TIME AND DATE.**

SUMMARY OF THE WORK:

Roofing Demolition:

- a. Remove all existing panel fasteners and discard.
- b. Remove foam closure at ridge and discard.
- c. Remove existing flexible flashing boots at pipe penetrations and discard.
- d. Remove sheet metal fascia at rake edges and discard.

Roofing Installation

- a. Powerwash entire roof surface as required by coating manufacturer.
- b. Apply primer to roof surface.
- c. Treat surface corrosion with rust inhibitive primer.
- d. Install new screw fasteners at all locations where existing fasteners were removed. Enhance fastening at eaves as shown in the drawings.
- e. Apply flashing grade sealant at all fasteners.
- f. Apply flashing grade sealant at all horizontal and vertical panel overlaps as shown in drawings.
- g. Install new fascia metal at rake edges.
- h. Install new flexible flashing boots at all pipe penetrations.
- i. Replace roof panel sections where shown on drawings.
- j. Apply coating base coat and top coat consisting of two differing colors. Each application should be minimum 17 mils dry film thickness (DFT).

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION

SECTION 00 21 13
INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.1 AIA DOCUMENT A701-1997

- A. Refer to AIA Document A701-1997, Instructions to Bidders. Free sample previews of the document are available at www.aiacontracts.org.
- B. Supplemental Instructions
 - 1. Add following subparagraphs.
 - 2.1.3.1 Bidder is responsible for verifying visible conditions, including dimensions, materials, and attachments to remain, on existing facility. Existing conditions shown on Drawings are for information only and must be verified in field.
 - 2.1.3.2 Schedule site visits by contacting Mr. Bill Frossard, 708.301.0632 ext: 140
 - 4.1.8 Bidders shall include time to start and length of construction period, in calendar days, for Base Bid and each Alternate.
 - 4.2.1.1 Bid security shall be 10 percent of Base Bid Total amount, in form of surety bond or cashier's check.
 - 4.2.1.2 Bidder shall execute Owner-Contractor Agreement within ten days of receipt of notice of bid acceptance and shall furnish required bonds and insurance certificates to Owner within three days thereafter, or bid security shall be forfeited to Owner as liquidated damages.
 - 4.2.2.2 Use AIA Document A310-1970 or another pre-approved form for bid bond. Bid-bond surety company is subject to Owner's approval.
 - 4.2.3.1 Bid security will be returned to all except three lowest bidders within three working days after bid opening.
 - 4.2.3.2 Remaining bid securities will be returned promptly after Owner and accepted Bidder have executed Owner-Contractor Agreement. Bidder may request return of bid security 60 days after Bid Due date if Bidder has not been notified of acceptance of Bidder's Bid.
 - 7.1.1.1 Provide payment bond for Contract Amount.

END OF SECTION

SECTION 00 41 44

BID FORM

BID FOR: Roofing Rehabilitation
Homer Glen Public Works Garage
4400 West 151st Street
Homer Glen, Illinois 60491

BID FROM: (Bidder's Name)

(Bidder's Address)

Date: , 2024

The undersigned acknowledges receipt of:

- A. Project Manual and Drawings for Roofing Rehabilitation
Homer Glen Public Works Garage
4400 West 151st Street
Homer Glen, Illinois 60491

Dated: October 16, 2024

- B. Addenda: No. Dated:
No. Dated:
No. Dated:

- C. Has examined the site and all Bidding Documents and agrees:
1. To hold these Bids open until 90 calendar days after Bid Opening Date.
2. To execute a satisfactory Agreement between Owner and Contractor within ten (10) days after notice of award.
3. To accept the provisions of the Bidding Instructions.
a. Provide Bid Security equal to 10 percent of the Bid Total Amount.
D. As part of the Base Bid the Bidder agrees to:
1. Provide all necessary scaffolding and staging.
2. Provide all necessary protection for public safety.
3. Provide all necessary protection of the building and property (i.e., windows, landscaping).
4. Clean all areas affected by the Work.

5. Proposes to accomplish all Work in accordance with the Contract Documents for the bid prices as outlined in the following sections.

LUMP SUM PORTION OF BASE BID

Table with 3 columns: Item, Type of Work, Total Bid. Rows include L1 (Access and general conditions) and L2 (Preparation of existing metal roofing).

UNIT PRICE PORTION OF BASE BID

UNIT PRICES: The following Unit Prices shall govern for the Base Bid and any deviations from the quantities listed in the Base Bid.

Table with 3 columns: Item, Type of Work, Cost. Row U1: Remove and replace galvanized steel Type 'R' metal panel.

SUMMARY PORTION OF BID

Bid Total (Sum of Subtotals L1 through L2): \$ _____

Bid Total (in words): _____

Dollars

TIME AND MATERIAL: To address changes in the work not indicated by the scope of work and upon written instruction of the Owner, the following prices shall prevail in accordance with the General Conditions.

LABOR COSTS: All trades at their prevailing hourly rate plus _____ percent (_____ %) for profit and overhead. Attach rate schedule.

MATERIAL COSTS: At cost plus _____percent (_____ %) for profit and overhead.

CONSTRUCTION SCHEDULE

The Contractor agrees to commence work under the Contract on or before a date to be specified in a written "Notice to Proceed." It is anticipated that this project will begin April 1, 2025. The Contractor proposes to complete all work within _____ calendar days (barring inclement weather and unsolvable material delays) from the date specified in the Notice to Proceed. Construction must be completed no later than June 1, 2025.

Failure to substantially complete the work during the Construction Time period stated above, plus any adjustments authorized by the Owner in writing, will be considered a substantial violation of the Contract.

The selected Contractor shall submit a detailed construction/work sequence schedule describing the work to be performed on an event by event basis, together with an estimate of time necessary to complete each phase of the Project.

IN SUBMITTING THIS BID, IT IS UNDERSTOOD THAT THE RIGHT IS RESERVED BY SAID OWNER TO REJECT ANY AND ALL BIDS, AND IT IS AGREED THAT THIS MAY NOT BE WITHDRAWN FOR A PERIOD OF THIRTY (30) DAYS FROM THE OPENING THEREOF.

SUBCONTRACTORS

List all subcontractors:
(This form may be copied for use in providing additional subcontractors.)

Contact: _____

Company: _____

Building: _____

Address: _____

Phone: _____

Scope of Work: _____

Contact: _____

Company: _____

Building: _____

Address: _____

Phone: _____

Scope of Work: _____

BIDDER'S RESUME

List minimum of three jobs of similar type and scope performed in the last five years:

Project 1

Owner: _____

Building: _____

Address: _____

Phone: _____

Architect/Engineer: _____

Scope of Work: _____

Contract Dollar Amount: _____

Project 2

Owner: _____

Building: _____

Address: _____

Phone: _____

Architect/Engineer: _____

Scope of Work: _____

Contract Dollar Amount: _____

Project 3

Owner: _____

Building: _____

Address: _____

Phone: _____

Architect/Engineer: _____

Scope of Work: _____

Contract Dollar Amount: _____

BIDDER'S ENDORSEMENT

The undersigned certifies that this proposal has been prepared under his personal supervision with his full knowledge.

Date _____

Firm Name _____

By _____

(Printed name of Corporation officer, Partner or sole Owner signing Proposal)

(Signature)

(Title)

Business Address _____

Telephone _____

END OF SECTION

SECTION 00 52 14
AGREEMENT FORM

PART 1 GENERAL

1.1 AGREEMENT FORM

- A. Owner/Contractor Agreement form is AIA Document A104-2017, Standard Abbreviated Form of Agreement Between Owner and Contractor. Free sample previews of the document are available at www.aiacontracts.org.
- B. Terms *Architect*, *Engineer*, and *Architect/Engineer* are used interchangeably.

END OF SECTION

SECTION 00 60 11

BONDS AND CERTIFICATES

PART 1 GENERAL

1.1 BONDS AND CERTIFICATES

- A. Furnish the following with executed Owner-Contractor Agreement.
 - 1. Payment Bond: Use AIA Document A312-2010, Performance Bond and Payment Bond, or another pre-approved form.
 - 2. Certificates of Insurance: Use ACORD 25 (2016/03), Certificate of Liability Insurance, and ACORD 27 (2009/12), Certificate of Property Insurance, with AIA Document G715-2017, Supplemental Attachment, or another pre-approved form.
- B. Bond Surety Company shall be satisfactory to Owner.
- C. Include costs for bonds and insurance in Bid.
- D. Attorneys-in-Fact who sign bonds shall file with each bond a certified copy of their Power of Attorney, with effective date.

END OF SECTION

EXHIBIT A

1. Insurance:

The Organization agrees to obtain insurance issued by a company or companies qualified to do business in the State of Illinois and provide the Village with evidence of credible insurance, in the following types and amounts is necessary:

a) Worker's Compensation and Employer's Liability with limits not less than:

1. Worker's Compensation: Statutory;
2. Employer's Liability;
3. \$1,000,000 injury-per occurrence
4. Such insurance must evidence that coverage applies in the State of Illinois.

b) Comprehensive Motor Vehicle Liability with limits for vehicles owned, non-owned or rented not less than:

Bodily Injury/Property Damage: Combined Single Limit: \$1,000,000 per accident

c) Comprehensive General Liability with coverage written on an "occurrence" as is and with limits no less than:

1. Each Occurrence: \$ 1,000,000
2. General Aggregate: \$2,000,000
3. Products and completed operations: General Aggregate: \$2,000,000

d) Umbrella Policy. The required coverages may be in any combination of primary, excess, and umbrella policies. Any excess or umbrella policy must provide excess coverage over underlying insurance on a following-form basis such that when any loss covered by the primary policy exceeds the limits under the primary policy, the excess or umbrella policy becomes effective to cover such loss. This policy should apply to the Commercial General Liability and Motor Vehicle Coverage. Minimum amount \$5,000,000 in combination. An exception for a lower limit may be granted at the discretion of the Village of Homer Glenn. Such an exception could be based upon other criteria such as a review of their safety record, information provided by references, and/or any established prior history. Organization agrees to name the Village of Homer Glenn, its officers, officials, Village President, Board of Trustees, agents, employees, representatives, volunteers, and attorneys, as additional insureds on the Comprehensive General Liability, Comprehensive Motor Vehicle Liability and Umbrella/Excess Policies. Organization agrees to provide insurance with an endorsement naming the Village of Homer Glenn and its officers, officials, Village President, Board of Trustees, agents, employees, representatives, volunteers, and

attorneys as additional insureds. Organization further agrees that all insurance policies are to be placed with insurers authorized to conduct business in the state with a current A.M. Best rating of no less than A:VII, unless otherwise acceptable to the Village.

e) Other Insurance Provisions:

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. The Village of Homer Glenn, and its officers, officials, Village President, Board of Trustees, agents, employees, representatives, volunteers, and attorneys are to be covered as additional insureds on the general liability, auto and umbrella/excess policies. An endorsement naming the above as additional insureds, on a primary, noncontributory basis, must be submitted with the Certificate(s) of Insurance.
2. For any claims related to this Agreement, the insurance coverage must be primary insurance coverage at least as broad as ISO CG 20 01 04 13, as it relates to the additional insureds. Any insurance or self-insurance maintained by the Village, its officers, officials, employees, volunteers and attorneys, must be in excess of the Organization's insurance, and not contributory with or to the Organization's insurance. Organization must procure and maintain for the duration of the Agreement, and for 2 years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the services hereunder by the Organization, its agents, authorized contractors, vendors, representatives, employees, and any sub-Organizations.
3. The insurance shall contain no special limitation on the scope of protection afforded the Village, and shall contain a "contractual liability" clause. Athletic participation must not be excluded.
4. Insurance coverage shall waive all rights of subrogation against the Village.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/3/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER [REDACTED] P.O. Box 470 New Castle IN 47362	CONTACT NAME: Tiffney Morris
	PHONE (A/C, No, Ext): [REDACTED] FAX (A/C, No) [REDACTED] E-MAIL [REDACTED] ADDRESS: [REDACTED]
INSURED [REDACTED] [REDACTED] CAROL STREAM IL 60188-2243	INSURER(S) AFFORDING COVERAGE
	INSURER A: Cincinnati Insurance Company NAIC # 10677
	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:

COVERAGES CERTIFICATE NUMBER: **FPS 24-25** REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC			[REDACTED]	1/1/2024	1/1/2025	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			[REDACTED]	1/1/2024	1/1/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Underinsured motorist combined sin \$ 1,000,000
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 0			[REDACTED]	1/1/2024	1/1/2025	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y/N <input checked="" type="checkbox"/> N/A			[REDACTED]	1/1/2024	1/1/2025	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Leased/Rented Equipment Crime/Employee Dishonesty			[REDACTED] [REDACTED]	1/1/2024 1/1/2024	1/1/2025 1/1/2025	Limit Limit

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
 Village of Homer Glen are additional insureds on a primary and non-contributory basis with respect to General Liability and Auto Liability per written contract for work performed by the insured. Umbrella follows form. Waiver of subrogation applies in favor of the additional insureds with respect to General Liability, Auto Liability and Workers Compensation per written contract for work performed by the insured.

CERTIFICATE HOLDER

CANCELLATION

Village of Homer Glen
 14240 W 151st Street
 Homer Glen, IL 60491

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

SECTION 00 72 00
GENERAL CONDITIONS

PART 1 GENERAL

1.1 GENERAL CONDITIONS

- A. General Conditions are AIA Document A201-2017, General Conditions of the Contract for Construction. Free sample previews of the document are available at www.aiacontracts.org.

END OF SECTION

SECTION 00 73 00

SUPPLEMENTARY CONDITIONS

PART 1 GENERAL

1.1 SUPPLEMENTARY CONDITIONS

- A. The following supplementary conditions modify provisions of AIA Document A201-2017, General Conditions of the Contract for Construction. Free sample previews of the document are available at www.aiacontracts.org. Unaltered portions of General Conditions remain in effect.

Article 1 General Provisions

Add Subparagraphs 1.1.3.1, 1.1.3.2, 1.1.3.3, and 1.1.3.4.

*1.1.3.1 **Furnish:** Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.*

*1.1.3.2 **Install:** Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.*

*1.1.3.3 **Provide:** Furnish and install, complete and ready for intended use.*

*1.1.3.4 **Rules and Regulations** shall include conventions and agreements within construction industry that control performance of Work.*

Add Subparagraph 1.2.4.

1.2.4 Sections of Division 01 - General Requirements expand on provisions of these General Conditions and govern the execution of the Work of all sections of the Specification.

Add Subparagraph 1.4.1.

1.4.1 Where phases such as “as selected,” “as approved,” “or equal,” or “or approved equal” are used, it is understood that the selecting or approving party is the Architect/Engineer, unless another is party specifically designated by the Owner.

Add Subparagraph 1.5.3.

1.5.3 Any unauthorized use of the Instruments of Service by the Contractor, Subcontractors, Sub-subcontractors, or suppliers shall be at that party’s sole risk and that party shall indemnify Architect/Engineer for any liability or legal exposure to Architect/Engineer related to the unauthorized use.

Delete Paragraphs 1.7 and 1.8 and add the following:

1.7 —Not Used—

1.8 —Not Used—

Article 2 Owner

Delete Subparagraph 2.3.2 and add the following:

2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number. The terms “Architect,” “Architect/Engineer,” and “Engineer” are used interchangeably.

Article 3 Contractor

Add Subparagraph 3.1.4.

3.1.4 The Contractor is responsible for all obligations related to the Work unless the obligation is specifically attributed to the Owner.

Add the following to Subparagraph 3.2.2.

3.2.2.1 *The Contractor shall not scale drawings to determine dimensions. It is the Contractor's responsibility to verify all field dimensions or request additional information from the Architect when areas cannot be field measured.*

3.2.2.2 *The Contractor shall report to the Architect/Engineer any specified Work that, in the opinion of the Contractor, cannot reasonably be constructed as specified.*

Delete Subparagraph 3.5.2 and add the following.

3.5.2 *All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner or shall be transferrable to the Owner, shall commence in accordance with Section 9.8.4, and shall not be limited by the period for correction of work established in Paragraph 12.2.*

Add Subparagraph 3.6.1.

3.6.1 *The Owner is a tax-exempt organization and is exempt from sales tax on products permanently incorporated in the Work. When making purchases, the Contractor shall certify in writing on the invoice or sales ticket copy to be retained by the vendor that purchases were made for and on behalf of the Owner. The Contractor shall furnish copies of the invoices or sales tickets to the Owner and shall provide separate amounts for labor and materials on the monthly payment requests."*

Article 4 Architect

Delete Subparagraph 4.1.2 and add the following.

4.1.2 *Duties, responsibilities, and limitations of authority of the Architect/Engineer as set forth in the Contract Documents may be restricted, modified, or expanded by the Owner and Architect/Engineer without the consent of the Contractor. The Contractor shall be notified of any changes to the duties, responsibilities, or limitations of authority of the Architect/Engineer.*

Article 5 Subcontractors

Add Subparagraph 5.3.1.

5.3.1 *Each Subcontractor shall indemnify and hold harmless the Owner, Architect/Engineer, Architect/Engineer's consultants, and agents and employees of any of them, per Paragraph 3.18, to the extent of the Work to be performed by the Subcontractor.*

Article 9 Payments and Completion

Add Subparagraph 9.3.4.

9.3.4 *The application for payment form shall be AIA Document G702-1992, Application and Certification for Payment (or a similar form agreed upon by the Owner and Architect), supported by AIA Document G703-1992, Continuation Sheet (or a similar form agreed upon by the Owner and Architect). The first payment application shall include the Contractor's partial waiver of lien for the payment amount. Each subsequent payment application shall include the Contractor's partial waiver of lien for the payment amount and partial waivers of lien of Subcontractors and material suppliers who were included in the immediately preceding payment application, to the extent of that payment. The application for final payment shall include final waivers of lien from the Contractor, Subcontractors, and material suppliers who have not previously furnished final waivers.*

Article 10 Protection of Persons and Property

Add the following to Subparagraph 10.2.6.

The responsible person shall conduct regularly scheduled meetings with Subcontractors and, in the event of Separate Contracts, with other Contractors to promote compliance with governing safety regulations.

Add Paragraph 10.5 including Subparagraphs 10.5.1 and 10.5.2.

10.5 Use and Control of Moisture

10.5.1 The Contractor shall control moisture from construction activities or due to temporary demolition during construction and prevent such moisture from creating or contributing to conditions conducive to deterioration of materials or biological growth. This includes providing temporary weather protection of work areas to reasonably prevent weather from entering the interior or damaging components to remain.

10.5.2 The Contractor shall control water runoff and shall not allow contaminated water or debris to enter storm sewers. The Contractor shall comply with local, state, and federal laws and ordinances regarding water runoff.

Article 11 Insurance and Bonds

Add Subparagraph 11.1.4.

11.1.4 Within three (3) business days of the date the Contractor becomes aware of any impending or actual cancellation of any insurance or substantial change in coverage required by Section 11.1, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide the required coverage throughout the project duration (including statute of limitations period). Upon receipt of the notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. Alternately, the Owner shall have the right, but not the obligation, to independently obtain such insurance. In such case, the Contractor shall repay the Owner immediately upon demand the premium together with interest and all costs and expenses incurred by the Owner without prejudice to any rights or remedies of the Owner under this Agreement. At the Owner's option, all sums due the Owner may be deducted from payments due to the Contractor under this Agreement.

Article 12 Uncovering and Correction of Work

Modify Subparagraphs 12.2.2.1, 12.2.2.2, and 12.2.2.3 as follows:

12.2.2.1 Change "one year" to "two years" at one location in Line 1. Change "one-year" to "two-year" at one location in Line 7.

12.2.2.2 Change "one-year" to "two-year" at one location in Line 1.

12.2.2.3 Change "one-year" to "two-year" at one location in Line 1.

Modify Subparagraph 12.2.5 as follows:

12.2.5 Change "one-year" to "two-year" at one location in Line 2.

Add Paragraph 12.4.

12.4 In addition to complying with the requirements of the Contract Documents, the completed Work shall be watertight (i.e., no liquid water inboard of the primary waterproofing, roofing, and/or weather barrier element) for the correction period. In executing the Owner-Contractor Agreement, the Contractor represents that it is knowledgeable in the Work to be performed. It is the responsibility of the Contractor to take any and all steps necessary to provide a watertight system. Errors, inconsistencies, or omissions in the

Contract Documents or unanticipated field conditions shall be reported promptly to the Architect/Engineer under Paragraph 3.2.2, and do not relieve the Contractor of its responsibility to provide a watertight system.

Article 13 Miscellaneous Provisions

Add the following to Paragraph 13.6.

Interest shall not accrue on disputed amounts due until the Owner and Contractor have resolved such dispute.

Article 14 Termination or Suspension of the Contract

Delete Subparagraph 14.1.1.3 and substitute the following.

14.1.1.3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Subparagraph 9.4.1, or because the Owner has not made payment on a Certificate for Payment certified by the Architect that is undisputed by the Owner within the time stated in the Contract Documents; or

- B. The following supplementary conditions modify provisions of AIA Document A101-2017 Exhibit A, Insurance and Bonds. Unaltered portions remain in effect.

Add the following after Subparagraph A.3.2.1:

Maintain products-completed operations coverage through statute of limitations for any Project-related claims, including warranty claims.

Add the following Subparagraph A.3.2.2.3:

General Aggregate and Per Project Aggregate endorsements shall be added to the General Liability policy.

A.3.2.2.1 Commercial General Liability \$1,000,000 each occurrence; \$2,000,000 general aggregate; \$2,000,000 aggregate for products-completed operations hazard

A.3.2.3 Automobile Liability \$1,000,000 per accident

A.3.2.6 Employer's Liability \$1,000,000 each accident; \$1,000,000 each employee; \$1,000,000 policy limit

END OF SECTION

SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Description of existing conditions and Contractor duties and use of premises.

1.2 OWNER/CONTRACTOR AGREEMENT

- A. Perform Work under terms of A201 - General Conditions of the Contract for Construction, and Section 00 73 00 - Supplementary Conditions.
- B. Owner: Village of Homer Glen
- C. Consultant: Wiss Janney Elstner Associates
 330 Pfingsten Road
 Northbrook, Illinois 60062

1.3 CONTRACTOR DUTIES

- A. Except as specifically noted, provide and pay for:
 - 1. Labor, materials, and equipment.
 - 2. Tools, construction equipment, and machinery.
 - 3. Water, heat, power, and lights required for construction.
 - 4. Other facilities and services necessary for proper execution and completion of Work.
 - 5. Legally required sales, consumer, and use taxes. Owner's tax-exempt sales tax number is E99449471
 - 6. Permits, government fees, and licenses as necessary for proper execution and completion of Work and as applicable at time of receipt of bids.
- B. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities having jurisdiction, which bear on performance of Work.
 - 1. Take necessary safety precautions to prevent injury to construction personnel, non-construction personnel, Owner's property, and adjacent facilities.
 - 2. Give required notices.
 - 3. Products shall comply with local regulations, including environmental restrictions.
 - 4. Promptly submit written notice to Architect/Engineer of observed variance of Contract Documents from legal requirements. It is not the Contractor's responsibility to make certain that Drawings and Specifications comply with codes and regulations.
 - a. Propose appropriate modifications to Contract Documents for necessary changes.
 - b. Assume responsibility for Work known to be contrary to such requirements, which is performed without notice.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons or persons not skilled in their assigned tasks.
- D. Provide 24-hour emergency contact information for Contractor and major subcontractors, including names and telephone numbers.

1.4 CONTRACTOR USE OF PREMISES

- A. Confine operations at Site to areas permitted by law, ordinance, permits, and Contract Documents.
- B. Owner will occupy premises outside of Work area during construction period.
 - 1. Cooperate with Owner to minimize conflicts and facilitate Owner usage.
 - 2. Perform Work to avoid interference with Owner's day-to-day operations. Notify Owner's Representative at least 72 hours in advance of activities that will affect Owner's operations.
 - 3. Maintain vehicular, pedestrian, and emergency access to portions of facility that are in use. Keep entrances and exits clear of stored materials and construction equipment.
 - a. Short interruptions in access may be permitted if approved in advance in writing by the Owner's Representative.
 - b. Schedule deliveries to minimize interruptions.
 - 4. Do not disturb Site outside of Work area.
- C. Minimize interference with adjacent streets and walkways and adjacent facilities.
- D. Contractor shall have no additional storage or operational area outside of Work area, either inside or outside of building, except as approved in advance by Owner's Representative.
 - 1. Construction equipment, tools, etc., shall not be stored in areas of Owner's continued use.
 - 2. Do not unreasonably encumber Site with materials or equipment.
 - 3. Do not load Project structure with weight that will endanger Project structure.
 - 4. Assume full responsibility for Site security and protection and safekeeping of products stored at Site.
 - 5. Obtain and pay for additional storage areas needed for operations.

1.5 WORK SCOPE

- A. Work includes the following activities:
 - 1. **Base Bid - Demolition Work**
 - a. Remove all existing panel fasteners and discard.
 - b. Remove foam closure at ridge and discard.
 - c. Remove existing flexible flashing boots at pipe penetrations and discard.
 - d. Remove sheet metal fascia at rake edges and discard.
 - 2. **Base Bid – Roofing Installation**
 - a. Powerwash entire roof surface as required by coating manufacturer.
 - b. Apply primer to roof surface.
 - c. Treat surface corrosion with rust inhibitive primer.
 - d. Install new screw fasteners at all locations where existing fasteners were removed. Enhance fastening at eaves as shown in the drawings.
 - e. Apply flashing grade sealant at all fasteners.
 - f. Apply flashing grade sealant at all horizontal and vertical panel overlaps as shown in drawings.
 - g. Install new fascia metal at rake edges.
 - h. Install new flexible flashing boots at all pipe penetrations.
 - i. Replace roof panel sections where shown on drawings.
 - j. Apply coating base coat and top coat consisting of two differing colors. Each application should be minimum 17 mils dry film thickness (DFT).

1.6 OWNER OCCUPANCY

- A. Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

END OF SECTION

Verify that all of your Illinois Sales Tax Exemption Certificate information is correct

- ✓ **If not**, contact us immediately.
- ✓ **Do not discard** - your Illinois Sales Tax Exemption Certificate is an important tax document that authorizes you to purchase tangible personal property for use or consumption tax-free.

OFFICIAL DOCUMENT

State of Illinois - Department of Revenue

OFFICIAL DOCUMENT

Illinois Sales Tax Exemption Certificate



VILLAGE OF HOMER GLEN

14240 W 151ST ST
HOMER GLEN IL 60491-5902

Sales Tax Exemption Certificate

Issue date:
02/10/2020

Expiration date:
03/01/2025

Sales Tax Exemption

E99449471

Organization type:

Governmental

This entity is authorized under the Retailers' Occupation Tax Act to purchase tangible personal property for use or consumption tax-free.

 **ILLINOIS REVENUE**
[Signature]
Director

OFFICIAL DOCUMENT - DO NOT DESTROY

SECTION 01 20 10

CONTRACT MODIFICATION AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements for preparing, handling, and processing Contract modifications and Applications for Payment, including allowances, unit price Work, alternates, and product substitutions.

1.2 UNIT PRICE WORK

- A. Definition: Unit price, stated on the Bid Form, is the price per unit of measurement for materials and services for a specific Work activity. The Contract Sum may be increased or decreased by Unit Price adjustment, based on the difference between the estimated bid quantity and the actual Work quantity.
- B. Measurement Procedures:
 - 1. Measure Work performed on a unit price basis and maintain a record of the location and unit price quantity of each repair installed. Unless stated otherwise by the Architect/Engineer, document unit price quantities with plan view or elevation drawings, or both, and tables with required data, cross-referenced to drawings. Submit recorded information to Architect/Engineer on a weekly basis.
 - 2. Architect/Engineer will verify the accuracy of measurements and approve final quantities. Notify Architect/Engineer at least two days before Work will be performed that might make this verification difficult or impossible.
 - 3. Notify Owner's Representative and Architect/Engineer at once in writing of unit price work that deviates materially from the Unit Price basis for payment and for which an adjustment in Unit Price is desired.
 - a. Measure and quantify all such deviations, and allow Architect/Engineer to verify the accuracy of measurements, prior to performing Work that might make verification difficult or impossible.
 - b. Adjustments will be considered only if all repairs of given type have been measured and all deviations, both plus and minus, have been included in the determination of the average deviation from the Unit Price basis for payment.
- C. Payment Procedures:
 - 1. As part of Project closeout, the Contract Sum will be modified by the unit price times the variation in the actual Work quantity from the estimated quantity included in the Bid Form, based on quantities measured by the Contractor and approved by the Architect/Engineer.

1.3 ALTERNATES

- A. Description of Alternates:
 - 1. Alternate 1: Removal of existing roofing and installation of a new 60 mil white EPDM roofing membrane in lieu of the specified 90 mil membrane.
- B. Procedures:

1. Upon notification of alternates selected by the Owner, inform subcontractors of selected alternates and of changes in the Work due to selection or rejection of alternates.
2. Execute accepted alternates under the same conditions as other work of the Contract.
3. Modify or adjust affected adjacent Work as necessary to completely integrate the Work of an alternate into Project.

1.4 SUBSTITUTION PROCEDURES

A. Definitions:

1. Substitutions: Changes proposed by Contractor in products, materials, equipment, or methods of construction from those required by Contract Documents.
 - a. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - b. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

B. Submittals:

1. Substitution Requests: Submit three copies of request for consideration. Use CSI Form 13.1A or similar form. Identify product or fabrication or installation method to be replaced. Include Specification section and Drawing numbers and titles.
 - a. Provide the following information. If the following information is not provided, Architect/Engineer may return requests without action, except to record noncompliance with these requirements.
 - 1) Statement indicating why specified product, fabrication, or installation cannot be provided, if applicable.
 - 2) Product Data, including drawings and descriptions of products, and fabrication and installation procedures. Where applicable or requested, include:
 - a) Samples.
 - b) Certificates and qualification data.
 - 3) Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - a) Research reports evidencing compliance with the building code in effect for Project.
 - b) Necessary approvals of public authorities having jurisdiction.
 - 4) A detailed comparison of significant qualities of proposed substitution with those of specified Work. Include an annotated copy of applicable Specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from specified Work.
 - 5) List of similar installations for completed projects with project names and addresses and names and addresses of architect/engineers and owners.
 - 6) Coordination information, including a list of changes or modifications needed to other portions of Work that will be necessary to accommodate proposed substitution.
 - 7) Cost information and a detailed comparison of Contractor's construction schedule using proposed substitution compared to specified product, including the effect on overall Contract Time. Include proposal of change, if any, in Contract Sum or Contract Time.

- 8) Contractor's certification that proposed substitution complies with requirements in Contract Documents, including specified warranty, except as indicated in substitution request; is compatible with other portions of Work and other products; and is appropriate for applications indicated and will produce indicated results.
 - a) Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturer.
 - 9) Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of the proposed substitution to produce the indicated results.
 - b. In addition, for substitutions of convenience, requested substitution must:
 - 1) Offer Owner substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect/Engineer for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - 2) Not require extensive revisions to Contract Documents.
 - c. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not less than 14 days prior to time required for preparation and review of related submittals.
 - d. Substitutions for Convenience: Architect/Engineer will consider requests for substitution if received within 60 days after Notice of Award. Requests received after that time may be considered or rejected at the discretion of Architect/Engineer.
 2. Architect/Engineer's Action: If necessary, Architect/Engineer will request additional information or documentation for evaluation within seven days of receipt of substitution request. Architect/Engineer will notify Contractor of acceptance or rejection of proposed substitution within 14 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Acceptance or rejection of proposed substitutions shall be at the sole discretion of Architect/Engineer, whose decision is final.
 - b. Accepted substitution will be incorporated into the Contract by Change Order, Construction Change Directive, or Architect/Engineer's Supplemental Instructions for minor changes in Work.
 - c. Use product specified if Architect/Engineer does not issue decision on use of proposed substitution within time allocated.
- C. Modify or adjust Work as necessary to integrate work of approved substitutions.

1.5 CONTRACT MODIFICATION PROCEDURES

- A. Minor Changes in Work: Architect/Engineer will issue supplemental instructions authorizing minor changes in Work, not involving adjustment to Contract Sum or Contract Time, on AIA Document G710, Architect's Supplemental Instructions.
- B. Proposal Requests:
 1. Owner-Initiated Proposal Requests: Architect/Engineer will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or Contract Time. The description may include supplemental or revised Drawings and Specifications.
 - a. Proposal Requests issued by the Architect/Engineer are for information only, and are not instructions to either stop Work or execute the proposed change.

- b. Within the time specified in the Proposal Request after receipt of the Proposal Request, submit adjustments to the Contract Sum and Contract Time necessary to execute change.
 2. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, propose changes by submitting a request for change to the Architect/Engineer.
 - a. Include a statement outlining reasons for the change and provide a complete description of the proposed change.
 - b. Submit adjustments to the Contract Sum and Contract Time necessary to execute the change within 21 days of becoming aware of latent or unforeseen condition. Owner will reject claims submitted later than 21 days after latent or unforeseen condition becomes known.
 3. Indicate the effect of the proposed change on the Work, and adjustments to the Contract Sum and Contract Time necessary to execute the change.
 - a. Include quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Do not include Contractor's or subcontractor's indirect expense unless it is clearly shown that the nature or extent of Work has changed from that which could have been foreseen from information in the Contract Documents. No change to Contractor's indirect expense is permitted for the selection of higher- or lower-priced materials, or systems of the same scope and nature as originally indicated.
 - e. Include an updated Construction Schedule that indicates the effect of the change, including changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of Contract Time.
 - f. Comply with requirements in Section 01 60 00 if proposed change requires substitution of one product or system for product or system specified.
 4. Use AIA Document G709, Work Changes Proposal Request, for Proposal Requests.
- C. Construction Change Directives:
 1. Architect/Engineer may issue a Construction Change Directive on AIA Document G714, Construction Change Directive, instructing Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - a. A Construction Change Directive contains a complete description of the change in Work, including a method to determine changes in the Contract Sum and Contract Time.
 2. Maintain detailed records on time and material basis of Work required by Construction Change Directive.
 - a. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
- D. Change Order Procedures:
 1. Owner will authorize a change in the Contract by executing AIA Document G701, Change Order.
 2. Allowance Adjustment: Change Orders for allowance items will decrease allowance amounts, and have no effect on Contract Amount, until the allowance amount has been depleted.

- a. If requested, prepare an explanation and documentation to substantiate distribution of overhead costs and other margins claimed.

1.6 PAYMENT PROCEDURES

A. Schedule of Values:

1. Format and Content:
 - a. Include the following Project identification.
 - 1) Project name and location.
 - 2) Name of Architect/Engineer.
 - 3) Contractor's name and address.
 - 4) Date of submittal.
 - b. Provide a breakdown of the Contract Sum in sufficient detail to facilitate an evaluation of the Applications for Payment.
 - 1) Coordinate with Project Manual Table of Contents.
 - 2) Provide separate line items for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of Work.
 - 3) Provide separate line item for each part of Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - 4) Where Work is phased, include effects of phasing in Schedule of Values.
 - 5) Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - 6) Show temporary facilities and other major cost items that are not a direct cost of actual Work-in-place, as either separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
 - 7) Round amounts to nearest whole dollar; total shall equal Contract Sum.
2. Coordinate the Schedule of Values with other administrative forms and schedules, including the Construction Schedule, submittal schedule, and application for payment forms.
3. Submit the Schedule of Values to Architect/Engineer at least two weeks before submittal of the initial Application for Payment.
4. Update and resubmit the Schedule of Values before the next Application for Payment when a Change Order results in a change in the Contract Sum.

B. Applications for Payment:

1. Payment Application Form: Use AIA Document G702 and AIA Document G703 Continuation Sheets as the form for Applications for Payment.
2. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect/Engineer and paid by Owner.
3. Application Preparation: Complete every entry on form. Notarize and execute by person authorized to sign legal documents on behalf of Contractor. Architect/Engineer will return incomplete applications without action.
 - a. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedule if revisions were made.
 - b. Include amounts of Change Orders and Construction Change Directives issued before the last day of the construction period covered by the application.
4. Submittal: Electronically submit one signed and notarized original copy of each Application for Payment to Architect/Engineer by method ensuring receipt. The application shall include waivers of lien and similar attachments if required. Send the

- submittal with a transmittal form listing attachments and recording appropriate information about the application.
5. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file mechanic's lien arising out of the Contract and related to the Work covered by payment.
 - a. Submit partial waivers on each item for the amount requested in the application, after deduction for retainage on each item.
 - b. When the application shows completion of an item, submit final or full waiver.
 - c. Execute waiver forms in a manner acceptable to Owner.
 - d. Owner reserves the right to designate which entities involved in Work must submit waivers.
 6. Application for Payment at Substantial Completion: After issuing a Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of Work claimed as substantially complete.
 - a. Include documentation supporting claim that Work is substantially complete and statement showing accounting of changes to Contract Sum.
 - b. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of Work.
 7. Final Payment Application: Submit a final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - a. Evidence of completion of Project closeout requirements.
 - b. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - c. Updated final statement, accounting for final changes to the Contract Sum.
 - d. AIA Document G706, Contractor's Affidavit of Payment of Debts and Claims.
 - e. AIA Document G706A, Contractor's Affidavit of Release of Liens.
 - f. AIA Document G707, Consent of Surety to Final Payment.
 - g. Evidence that claims have been settled.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Project coordination and supervision, meetings, schedules, and photographic documentation.

1.2 COORDINATION

- A. Project has special requirements for coordinating Work because of the following conditions.
 - 1. Complex nature and phasing of Work activities.
 - 2. Partial occupancy of facility by Owner during construction period.
- B. Provide supervision, planning, scheduling, and control to perform Work and meet requirements of Contract Documents.
 - 1. Schedule and coordinate construction operations in sequence required to obtain best results where installation of one part of Work depends on installation of other components, before or after its own installation.
 - 2. Notify affected parties in writing, as necessary, of special procedures required for coordination.
 - 3. Coordinate scheduling and timing of required administrative procedures to ensure orderly progress of Work. Such administrative activities include the following:
 - a. Preparation of a construction schedule and Schedule of Values.
 - b. Installation and removal of temporary facilities and controls.
 - c. Delivery and processing of submittals.
 - d. Progress and pre-installation meetings.
 - e. Project closeout activities.
- C. Notify the Owner's Representative in writing 48 hours in advance of time when construction areas will be returned to the Owner for use or when new Work areas are required.
- D. Submit a building access plan to Owner's Representative for review and written approval at least ten working days prior to its implementation. Include locations of temporary enclosures and storage.

1.3 SUPERVISION

- A. Provide a project superintendent at the Site a minimum of eight hours per day during the progress of the Work. The superintendent shall be literate and fluent in English.

1.4 MEETINGS

- A. General:
 - 1. Schedule and conduct meetings at the Site, unless otherwise indicated.
 - 2. Notify participants, others involved, and individuals whose presence is required, of the date and time of the meeting. Notify the Owner and Architect/Engineer of scheduled meeting dates and times.

3. Agenda: Prepare a meeting agenda and distribute agenda to invited attendees.
 4. Minutes: Architect/Engineer will record significant discussions, agreements, and disagreements, and distribute the meeting minutes to concerned parties, including the Owner and Architect/Engineer, within seven days of the meeting.
- B. Pre-Construction Meeting:
1. Conduct a pre-construction meeting before Work begins. The Owner's Representative, Architect/Engineer, and responsible representatives from major subcontractors and other concerned parties shall be present. Participants shall be familiar with the Project and authorized to conclude matters relating to the Work.
 2. Describe in detail when each portion of the Work is to be performed, based on the construction schedule. Discuss phasing and critical work sequencing. Subcontractors shall participate in discussion.
 3. Discuss the following:
 - a. Subcontractors, including responsibilities and personnel assignments.
 - b. Key personnel, including contact information, and their duties.
 - c. Procedures for requests for interpretations, field decisions, and change orders.
 - d. Procedures for processing Applications for Payment.
 - e. Use of premises, including office and storage areas, parking availability, and Owner's requirements.
 - f. Work hours and restrictions.
 - g. Deliveries and priorities.
 - h. Temporary facilities and controls.
 - i. Housekeeping procedures, including progress cleaning and construction waste management and recycling.
 - j. Preparation of record documents.
 4. Discuss questions that Contractor or subcontractors may have about Work or construction schedule.
 5. The Architect/Engineer will interpret the Contract Documents.
 6. The Owner's Representative will discuss partial occupancy and use of the facility during the construction and other Owner concerns.

1.5 SCHEDULES

- A. Prepare a construction schedule for the entire Work, including a complete sequence of construction by activity. The schedule shall be in the form of a horizontal bar chart, with a separate horizontal bar for each construction activity and the first workday of each week identified.
1. Provide beginning and completion dates for each construction activity and phase.
 - a. Indicate the completion percentage for each activity on the first day of each month.
 - b. Indicate time periods when portions of the Site will not be available for Owner use and when stairs and elevators will be used for construction activities.
 - c. Indicate periods of interruption of utility services.
 2. Provide submittal dates and dates when reviewed submittals will be required.
 3. Provide product procurement and delivery dates.
 4. Provide dates for the selection of finishes.
 5. Provide separate sub-schedules as necessary to provide more detail for critical portions of the schedule.
- B. Submit the construction schedule to the Owner's Representative and Architect/Engineer within one week after the date of the Notice to Proceed.

- C. Update the schedule on a monthly basis or when actual construction progress deviates significantly from that shown on the current schedule.
 - 1. Show all changes that have occurred since the previous schedule was prepared, including the progress of each activity, current completion dates, and major changes in scope.
 - 2. Provide a narrative report that discusses the following items and their effects on the schedule.
 - a. Progress of each activity and current completion date, compared to the previous schedule.
 - b. Description of changes.
 - c. Problem areas, including current and anticipated delay factors.
 - d. Corrective actions taken or proposed.
 - 3. Resubmit to the Owner's Representative and Architect/Engineer.
- D. Distribute the current schedule to the job-site file, subcontractors, and other affected parties. Instruct parties to report any inability to comply and to provide a detailed explanation with suggested remedies.

1.6 PHOTOGRAPHIC DOCUMENTATION

- A. Photograph existing conditions that are important to the construction or that deviate substantially from the Contract Documents; significant conditions that will be concealed by the Work; finish surfaces that might be misconstrued as damage caused by removal or other Work operations; and immediate follow-up when on-site events result in construction damage or loss.
 - 1. Photographs shall be in focus and shall clearly show the condition.
- B. Within two days of taking photographs, submit the complete digital-image electronic file with image log to the Architect/Engineer and Owner's Representative. Submit digital images exactly as originally recorded in the camera, without alteration, manipulation, editing, or modification.
 - 1. Submit photographs of pre-existing damage prior to beginning Work in area.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements for submitting shop drawings, product data, samples, and other submittals.

1.2 SUBMITTALS

- A. General:
 - 1. Format:
 - a. PDF Submittals: Prepare submittals as a PDF package, incorporating complete information into one PDF file for each product or material. Name each PDF file with submittal number
 - 2. Submittal Identification: Include the following information in each submittal.
 - a. Project name.
 - b. Date.
 - c. Names of Architect/Engineer, Contractor, subcontractor, manufacturer, supplier, and firm or entity that prepared submittal, as appropriate.
 - d. Identification information, such as the number and title of the appropriate Specification section, Drawing number and detail references, location(s) where product is to be installed, or other necessary information.
 - e. Label each submittal with the six digit Specification section number followed by a decimal point and then sequential number (e.g., 042000.01). On resubmittals, include alphabetic suffix after another decimal point (e.g., 042000.01.A).
 - f. Provide space on or beside the label or title block for the Contractor's approval stamp and the action stamp of the Architect/Engineer.
 - 3. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not use reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements outlined in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions, including notation of those established by field measurement.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Notation of coordination requirements.
 - e. Relationship to adjoining construction clearly indicated.
- C. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. Clearly mark each copy of the submittal to show which products and options are applicable. Delete information which is not applicable. Supplement standard information with project-specific information.
 - 2. Include the following information, as applicable:

- a. Manufacturer's catalog cuts, product specifications, schematic drawings, installation instructions, and written recommendations.
 - b. Compliance with referenced standards.
 - c. Testing by recognized testing agency.
 3. Submit the number of copies required by the Contractor plus two that will be retained by the Architect/Engineer, or digital file. Mark up and retain one returned copy as a Project Record Document.
- D. Samples: Upon request, submit physical samples to illustrate functional and aesthetic characteristics of the product, for review of materials and workmanship, for compatibility with other elements, and for comparison with the actual installed elements.
1. Samples shall be of sufficient size to show the general visual effect.
 2. Include sets of at least three samples that show the full range of color, pattern, texture, graining, and finish.
 3. Transmit samples that contain multiple, related components, such as accessories, together in one submittal package.
 4. Identification: Attach a label on an unexposed side of each sample that includes the following:
 - a. Generic description of sample.
 - b. Product name, name of manufacturer, and sample source.
 - c. Number and title of appropriate Specification section.
 5. Samples for Initial Selection: Submit two full sets of units or sections of units from the supplier's product line, showing the full range of colors, textures, and patterns available. Architect/Engineer will retain one set and return one set with the options selected.
 6. Samples for Verification: Submit full-size units or samples of the size indicated, prepared from the same material to be used for the Work, cured and finished in the manner specified, and physically identical with material or product proposed for use, and that show the full range of color and texture variations expected.
 - a. Submit the number of samples required by the Contractor plus one that will be retained by the Architect/Engineer. Mark up and retain one returned sample as a Project Record Document.
 7. Maintain approved samples at the Site, available for quality-control comparisons during construction. Samples may be used to determine final acceptance of construction associated with the sample.

1.3 SUBMITTAL PROCEDURE

- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
- B. Coordinate the preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, submittals requiring concurrent review, and related activities that require sequential activity.
 2. Allow sufficient time for submittal and resubmittal review. Failure to provide sufficient time for submittal and resubmittal reviews will not be a basis for extension of the Contract Time.
- C. Review Time:
 1. Allow seven days for the review of each submittal and resubmittal.

2. Allow additional time if coordination with subsequent submittals is required. The Architect/Engineer will advise the Contractor when the submittal being processed must be delayed for coordination.
 3. Time for review shall commence when the Architect/Engineer receives the submittal.
- D. Contractor Review:
1. Review each submittal, coordinate with other Work, and check for compliance with the Contract Documents. Verify field dimensions and conditions. Identify variations from the Contract Documents and product or system limitations that may be detrimental to the successful performance of completed Work. Note corrections.
 2. Before submitting to the Architect/Engineer, stamp or electronically mark-up, with a uniform approval stamp, including the reviewer's name; the date of Contractor's approval; and a statement certifying that the submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
 3. Submittal Log: Maintain submittal log that lists submitted items per specification section. Record dates submitted, dates returned, and disposition of each item based on Architect/Engineer's review. Submit final log showing approved materials at Substantial Completion.
- E. Transmittal: Package each submittal individually and appropriately for transmittal and handling.
1. Email Transmittal: Provide PDF transmittal. Include digital image file illustrating Sample characteristics, and identification information for record.
- F. Architect/Engineer Action:
1. Architect/Engineer will not review submittals that are received from sources other than the Contractor or that do not bear the Contractor's approval stamp, and will return them without action to the Contractor.
 2. Architect/Engineer will review each submittal for conformance with the design concept of the Project and compliance with the Contract Documents. Architect/Engineer will make marks to indicate corrections or modifications required, and stamp or electronically mark-up with an action stamp. The action stamp will include the reviewer's name, date of review, and required Contractor action. Contractor actions may include making corrections or modifications to the submittal or resubmitting the submittal, or both.
- G. Resubmittals: Make resubmittals in the same form and number of copies as the initial submittal.
1. Note the date and content of previous submittal.
 2. Note the date and content of the revision in the label or title block and clearly indicate the extent of the revision and changes made.
 3. Resubmit until the Architect/Engineer indicates that no resubmittal is required.
- H. Distribution: Furnish final copies (paper or digital) to the Site file, record documents file, manufacturers, subcontractors, suppliers, fabricators, installers, public authorities having jurisdiction, and others as necessary for performance of construction activities. Show the distribution on the transmittal forms.
- I. For construction, use only the final submittals with the Architect/Engineer's action stamp.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Requirements for temporary utilities, support facilities, and protection and controls.
- B. Pay for temporary utilities, support facilities, and protection and control measures unless otherwise indicated. Allow other entities to use temporary utilities and facilities without cost, including Owner's Representative, Architect/Engineer, subcontractors, testing agencies, and public authorities having jurisdiction.

1.2 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging and storage areas, and parking areas for construction personnel.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 GENERAL

- A. Conditions of Use:
 - 1. Locate temporary services and facilities where they will serve Project adequately and result in minimum interference with performance of Work. Coordinate locations with Owner's Representative.
 - 2. Provide temporary services and facilities ready for use when needed to avoid delay.
 - 3. Maintain temporary and existing services and facilities clean and neat, in good operating condition, and in condition acceptable to Owner's Representative.
 - 4. Relocate and modify temporary services and facilities as required by progress of Work.
 - 5. Enforce strict discipline in use of temporary services and facilities. To minimize waste and abuse, limit availability of temporary services and facilities to essential and intended uses.
 - 6. Remove temporary services and facilities when no longer needed, but no later than Substantial Completion.
 - a. Personnel remaining after Substantial Completion will be permitted to use permanent facilities under conditions acceptable to Owner's Representative.
 - b. Restore Site to condition existing before Project commencement.
 - c. Materials and facilities that constitute temporary facilities are property of Contractor.
- B. Provide temporary ladders, ramps, runways, stairs, scaffolding, staging, enclosures, hoists, rubbish chutes, and other construction aids as may be required for Work.

3.2 TEMPORARY UTILITIES

- A. Water Service: Use of Owner's existing water service will be permitted.
 - 1. Provide connections and extensions of service as required for construction operations.
 - 2. Provide additional water as necessary.
- B. Electric Power Service:
 - 1. Provide connections, extensions of service, and receptacle outlets as required for construction operations.
 - 2. As necessary, provide additional electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations. Do not overload Owner's service.
- C. Lighting: Contractor shall provide temporary lighting as needed.
 - 1. Provide additional lighting, as necessary, with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 2. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.3 TEMPORARY FACILITIES

- A. Parking: Construction personnel shall park in off-site unless other arrangements are made in advance in writing with Owner's Representative.
- B. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel at location designated by Owner's Representative.
 - 1. Provide disposable supplies, including toilet tissue, paper towels, and paper cups. Maintain adequate supply. Provide covered waste containers for disposal of used material.
 - 2. Service toilets at least twice weekly.
 - 3. Provide wash facilities supplied with potable water at convenient locations for personnel who handle materials that require clean up. Supply cleaning compounds appropriate for each type of material handled. Dispose of drainage properly.
 - a. Provide safety showers, eyewash fountains, and similar facilities for convenience, safety, and sanitation of personnel.
 - 4. Comply with public authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- C. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of public authorities having jurisdiction.
- D. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Construction maintenance and operation shall be in accordance with public authorities having jurisdiction.
 - 2. Locate sufficient distance from exterior walls and protect walls to prevent damage.
- E. Temporary Rubbish Chutes:
 - 1. Construct dustproof rubbish chutes on outside of structure, as required.
 - 2. Maintain chutes, and remove when no longer needed or when directed by Owner's Representative.
 - 3. Discharge chutes into trucks or suitable containers to avoid rehandling of rubbish. Spray rubbish as required to prevent dust nuisance. Remove rubbish from Site.

3.4 TEMPORARY PROTECTION AND CONTROLS

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with applicable laws, governmental rules and regulations, and public authorities having jurisdiction with regard to noise, dust, pest, and pollution control.
- B. Barricades, Warning Signs and Lights, and Traffic Controls: Provide and maintain barricades, warning signs and lights, and traffic controls. Provide traffic control as necessary for construction vehicles entering and leaving Site, and for non-construction vehicles on or near Site. Comply with requirements of public authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- C. Project Identification and Temporary Signs: Provide Project identification and other signs at locations indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.
 - 1. Provide temporary directional signs for construction personnel and visitors.
 - 2. Maintain signs so they are legible at all times.
- D. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 - 1. Provide portable, UL-rated fire extinguishers with class and extinguishing agent as required by locations and classes of fire exposures.
 - 2. Prohibit smoking on Site.
 - 3. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of public authorities having jurisdiction.
 - 4. Store combustible materials in approved safety containers and enclosures, away from building if possible.
 - 5. Develop and supervise overall fire-prevention and -protection program for personnel at Site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
- E. Dust and Fume Control: Prevent dust, dirt, fumes, and odors from entering occupied areas.
 - 1. Provide and maintain floor-to-ceiling dustproof partitions to limit dust, dirt, fumes, and noise migration to occupied areas.
 - 2. Filter supply air or disconnect HVAC systems in or near Work area that service occupied areas.
- F. Noise Control: Perform Work in manner to minimize noise, during hours authorized by Owner's Representative.
- G. Existing Gutters:
 - 1. Verify that gutters and downspouts in or near Work area are open and free flowing prior to start of Work.
 - 2. Lawfully remove construction effluent from Site. Do not allow construction debris to flow into existing drains or sewer systems.
 - 3. Rout or replace clogged gutters or downspouts at completion of Work.
- H. Temporary Construction Protection:

1. Provide and secure temporary weathertight protection for in-progress exterior construction, as needed, including unfinished Work on walls and roofs.
2. Protect finished surfaces against damage. Minimize traffic on finished roof surfaces and do not use for material storage.

END OF SECTION

SECTION 01 70 10
EXECUTION OF WORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: General administrative and procedural requirements governing execution of Work, including the following:
 - 1. Examination of existing conditions.
 - 2. Preparation.
 - 3. Removal of existing construction, including salvage and reuse of materials.
 - 4. Cutting and patching.
 - 5. Installation of Work.
 - 6. Protection of installed construction.
 - 7. Correction of Work.
 - 8. Progress cleaning.

- B. Cutting and patching includes the following:
 - 1. Removal and replacement of existing construction necessary to install Work or make several parts fit properly.
 - 2. Removal and replacement of Work
 - a. That is defective;
 - b. That does not conform to requirements of Contract Documents;
 - c. To provide for installation of ill-timed Work;
 - d. To alter Work; or
 - e. To allow observation of concealed Work.
 - 3. Removal of samples of installed Work for testing.

1.2 PAYMENT

- A. Pay for cutting and patching unless requested by Architect/Engineer for Work that is not defective or nonconforming.

1.3 REFERENCES

- A. Definitions:
 - 1. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
 - 2. 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 removed and reinstalled.
 - 3. Patching: Fitting and repair work required to restore construction to original condition after installation of other work.
 - 4. Remove: Detach items from existing construction and legally dispose of off-site, unless indicated to be removed and salvaged or removed and reinstalled.
 - 5. Remove and reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
 - 6. Remove and salvage: Detach items from existing construction and deliver to Owner ready for reuse.

1.4 SUBMITTALS

- A. Submit plan/procedures for protecting stored materials, installed work, building, and Site.
- B. Submit, prior to beginning Work, documentation of existing conditions, including finish surfaces, which might be misconstrued as damage caused by Work.

1.5 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: When cutting and patching structural elements, notify Architect/Engineer of locations and details of cutting and await directions from Architect/Engineer before proceeding. Shore, brace, and support structural element, as necessary, during cutting and patching. Do not cut and patch structural elements in manner that could change their load-carrying capacity or load-deflection ratio.
 - 2. Other Construction Elements: Do not cut and patch other construction elements or components in manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements might include the following:
 - a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Exterior curtain-wall construction.
 - d. Equipment supports.
 - 3. Visible Elements: Do not cut and patch exposed construction in a manner that results in visible evidence of cutting and patching or in a manner that would, in Architect/Engineer's opinion, reduce building's aesthetic qualities. Remove and replace construction that has been cut and patched in visually unsatisfactory manner.

1.6 PROJECT CONDITIONS

- A. Notify Architect/Engineer of discrepancies between Drawings and existing conditions before proceeding with Work.
- B. Assume responsibility for actual condition of existing construction.

1.7 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during Contractor operations, by methods and with materials so as not to void existing warranties.

PART 2 PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
 - 1. Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match adjacent surfaces to fullest extent possible.

- a. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide match acceptable to Architect/Engineer for visual and functional performance of in-place materials.
- B. Cleaning: Select cleaning materials, equipment, and methods to avoid scratching, marring, defacing, staining, or discoloring surfaces.
 - 1. Use cleaning materials and methods recommended by manufacturer of surface to be cleaned.
 - 2. Use cleaning materials on surfaces recommended by cleaning-material manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION OF EXISTING CONDITIONS

- A. Survey existing conditions and correlate with requirements indicated to determine extent of removal Work required.
 - 1. Inventory and record condition of items to be removed and salvaged or reinstalled.
- B. Document with photographs or video, or both, existing conditions of adjoining construction, including finish surfaces, which might be misconstrued as damage caused by demolition or other Work activities; existing conditions that are important to construction or that deviate substantially from Contract Documents; and significant conditions that will be concealed by Work.
- C. Examination and Acceptance of Conditions: Before proceeding with each component of Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Provide a written description of conditions detrimental to performance of the Work, including substrates and unacceptable installation tolerances, and recommend corrections.
 - 4. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.
- D. When unanticipated structural, electrical, or mechanical elements that conflict with intended function or design are encountered, investigate and measure nature and extent of conflict. Promptly submit written report to Architect/Engineer.
- E. Survey existing conditions as Work progresses to detect hazards resulting from construction.
- F. Provide access to Work areas and perform localized demolition as necessary for inspection of concealed underlying conditions by Architect/Engineer and Owner's Representative.

3.2 UTILITIES AND MECHANICAL AND ELECTRICAL SYSTEMS

- A. Disconnect and seal or cap off indicated utility services and mechanical and electrical systems in Work areas.

- B. Where existing utility services or mechanical or electrical systems are required to be removed, relocated, or abandoned, bypass such services/systems before beginning Work to prevent interruption to occupied areas.

3.3 PREPARATION

- A. Field Measurements: Take field measurements as required to fit Work properly. Recheck measurements before installing each product. Where portions of Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of Contract Documents caused by differing field conditions outside of the control of the Contractor, submit a request for information to Architect/Engineer. Include a detailed description of the problem encountered, with recommendations for changing the Contract Documents. Submit requests on CSI Form 13.2A, "Request for Interpretation."

3.4 PARTIAL REMOVAL

- A. Demolish and remove existing construction and installations only as necessary and required for proper installation of Work indicated on the Drawings and Specifications.
 - 1. Conduct removals carefully to avoid damaging existing construction and installations that will remain. Protect construction that will remain against damage and soiling. When permitted by Architect/Engineer, items may be removed to a suitable, protected storage location during removal Work and cleaned and reinstalled in original locations after removal operations are complete.
 - a. Neatly cut openings and holes plumb, square, and true to dimensions required.
 - b. Cut or drill from exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - c. Use cutting methods least likely to damage construction to remain.
 - d. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
 - e. Temporarily cover openings to remain.
 - 2. Provide and maintain shoring, bracing, and structural supports, as required to preserve stability and prevent movement, settlement, or collapse of construction or finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 3. Remedy damage to existing construction and installations caused by Contractor operations.

3.5 CUTTING AND PATCHING

- A. General: Cut in-place construction to provide for installation of other components or performance of other construction and proceed with patching after construction operations requiring cutting are complete, as required to restore surfaces to their original condition.
 - 1. Employ skilled workers to perform cutting and patching.
 - 2. Proceed with cutting and patching at earliest feasible time and complete without delay.
 - 3. Provide temporary support of work to be cut.
 - 4. Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
 - 5. Coordinate cutting and patching with use of and free passage to adjoining occupied areas.

- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using cutting machine, such as abrasive saw or diamond-core drill.
 - 4. Provide substrate suitable for installation of Work and patching.
 - 5. Notify Architect/Engineer and Owner's Representative immediately of damage to concealed elements, such as electrical conduits.

- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections.
 - 1. Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in manner that will minimize evidence of patching and refinishing. Provide even surface of uniform finish, color, texture, and appearance.
 - 3. Where patching occurs in painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over patch, and apply final paint coat over entire unbroken surface containing patch. Provide additional coats until patch blends with adjacent surfaces.
 - 4. Patch exterior building enclosure components in manner that restores enclosure to weathertight condition.

- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.6 INSTALLATION OF WORK

- A. General: Locate Work and components of Work accurately, in correct alignment and elevation. Make vertical work plumb and make horizontal work level.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to parties involved templates for work specified to be factory prepared and field installed. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where the size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Allow for building movement, including thermal expansion and contraction.
 - 2. Coordinate the installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous. Provide adequate ventilation during use of volatile or noxious materials.

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at the time of Substantial Completion.
- B. Comply with the manufacturer's written instructions for temperature and relative humidity.

3.8 CORRECTION OF WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their condition prior to construction.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

3.9 PROGRESS CLEANING

- A. General: Clean Site and Work areas daily, including common areas. Enforce requirements strictly. Separate materials per disposal requirements and dispose of legally.
 - 1. Provide containers for waste materials, debris, and rubbish.
 - 2. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 3. Collect hazardous and unsanitary waste materials and debris in separate containers from other waste. Use containers intended for holding waste materials of type to be stored and mark containers appropriately. Remove from Site daily and dispose of legally.
 - 4. Do not bury or burn waste materials, debris, or rubbish on-site. Do not discharge or wash waste materials, debris, or rubbish down sewers or into waterways.

- B. Site: Maintain Site and surrounding areas free of waste materials, debris, and rubbish from construction operations and personnel.
- C. Work Areas: Clean areas where Work is in progress to level of cleanliness necessary for proper execution of Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of Work, broom-clean or vacuum entire work area or dampen area, as appropriate.
- D. Installed Work: Keep installed Work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at the time of Substantial Completion.
- G. Handle waste materials, debris, and rubbish in a controlled manner with as few handlings as possible. Do not throw from heights.

END OF SECTION

SECTION 01 70 20

PROJECT CLOSEOUT

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements for contract closeout, including final cleaning; Substantial Completion and final completion procedures; and project record documents.
- B. Related Sections:
 - 1. Divisions 02 through 08 sections for special cleaning and specific closeout requirements for Work in those sections.

1.2 SUBMITTALS

- A. Warranties:
 - 1. Organize warranty documents into orderly sequence based on table of contents of Project Manual.
 - a. Bind warranties in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - b. Scan warranties and assemble the complete warranty submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide a table of contents at the beginning of the document.
 - 2. Submit one set of binders and one scanned copy of warranty package.
 - 3. Provide additional copies of each warranty to include in maintenance manual.
- B. Product Maintenance Manual:
 - 1. Assemble complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated in the Work. Include maintenance data required in individual Specification sections, for each product and system and the following:
 - a. Manufacturer's address and product information, cross-referenced to Specification section number and title.
 - 1) Include project-specific product details, such as color, pattern, texture, and material and chemical composition.
 - 2) Include re-ordering information for specially manufactured products.
 - 3) For manufacturers' standard printed data, include only sheets pertinent to product installed. Mark each sheet to identify each product incorporated into the Work. If data include more than one item, identify each item using appropriate references from Specification sections. Identify data applicable to the Work and delete references to information not applicable.
 - b. Name, address, and telephone number of Installer or supplier.
 - c. Maintenance and service schedules for preventive and routine maintenance.
 - d. Maintenance procedures, and maintenance materials and sources.
 - e. Maintenance record forms.
 - f. Copies of maintenance service agreements and warranties.
 - 2. Organize into suitable sets of manageable size, with a separate section for each product, material, and finish.

- a. Bind and index data in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, sized to receive 8-1/2-by-11-inch paper and in thickness necessary to accommodate contents, with pockets inside covers to receive folded oversized sheets..
 - b. Provide heavy, paper dividers with plastic-covered tabs for each separate product. Mark tab to identify product or installation.
 - c. Identify each binder on front and spine with typed or printed title "PRODUCT MAINTENANCE MANUAL," Project name, and subject matter of contents.
 - d. Scan the maintenance manual and assemble the complete maintenance submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide a table of contents at the beginning of the document.
3. Submit one set of binders and one scanned copy of maintenance manual package.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 EXECUTION

3.1 FINAL CLEANING

- A. General: Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations. Return adjacent surfaces and areas to condition existing before Work began.
 1. Remove tools, construction equipment, machinery, and surplus material from Site.
 2. Clean Site, yard, and grounds, including landscaped areas, of rubbish, waste materials, litter, and other foreign substances.
 - a. Broom clean paved areas. Remove petrochemical spills, stains, and other foreign deposits.
 - b. Rake grounds that are neither planted nor paved to smooth, even-textured surface.
 3. Clean exposed exterior and interior hard-surfaced finishes to dirt-free condition, free of stains, films, and similar foreign substances. Polish surfaces to achieve specified finish. Avoid disturbing natural weathering of exterior surfaces.
 - a. Touchup and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that show evidence of repair or restoration.
 - 1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.
 4. Clean and restore transparent and reflective surfaces, such as mirrors and glass in doors and windows, to their original condition. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 5. Remove labels that are not permanent.
 6. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.

7. Sweep floors broom clean. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
8. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove paint and mortar droppings and other foreign substances.
9. Leave Project clean and ready for occupancy.

3.2 SUBSTANTIAL COMPLETION

- A. Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.
 1. Prepare punch list, value of items on list, and reasons why Work is not complete.
 2. Deliver tools, spare parts, extra materials, and similar items to location designated by the Owner's Representative. Label with manufacturer's name and model number where applicable.
 3. Terminate and remove temporary facilities from Site, along with mockups, construction tools, and similar elements.
 4. Complete final cleaning requirements, including touchup painting.
 5. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

3.3 FINAL COMPLETION

- A. Before requesting final inspection for determining final completion, complete the following:
 1. Submit copy of Architect/Engineer's Substantial Completion inspection punch list, endorsed and dated by Architect/Engineer, with statement that items on punch list have been completed or otherwise acceptably resolved.
 2. Instruct Owner's personnel in maintenance of products installed.
- B. Request final inspection. On receipt of request, Architect/Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements.
 1. Request re-inspection when Work identified in previous inspections as incomplete is completed or corrected.

3.4 PROJECT RECORD DOCUMENTS

- A. During Work, maintain one set of prints of Drawings and reviewed shop drawings, Specifications, and product data for recording deviations of as-built construction from design information. Include addenda and Contract modifications.
 1. Accurately document and record changes and modifications as soon as possible after they occur, in understandable manner.
 2. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later. Record and check markup before enclosing concealed installations.
 3. Include:
 - a. Dimensional changes.
 - b. Revisions to Drawing details and details not on Drawings.
 - c. Changes made by Change Order or Architect/Engineer's written orders. Note Change Order numbers or similar identification.
 - d. Field records for variable and concealed conditions.
 - e. Record information on Work that is shown only schematically or omitted from Drawings.
 - f. Actual products and materials used.

- 1) Include product data, specifically marked for Project, and cross-referenced to Specifications, Drawings, and Change Orders.
 - 2) Include names of manufacturer and Installer, and other information necessary to provide record of selections made.
 - 3) Include significant changes in product delivered to Site and changes in manufacturer's written instructions for installation.
 4. Mark record document most capable of showing actual physical conditions completely and accurately. Cross-reference on other record documents.
 5. Mark record documents with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of Work at the same location.
- B. Store Record Documents and samples in field office apart from Contract Documents used for construction. Do not use Record Documents for construction purposes. Maintain Record Documents in good order and in clean, dry, legible condition, protected from deterioration and loss. Provide access to Record Documents for Architect/Engineer's reference during normal working hours.

END OF SECTION

SECTION 07 56 00
LIQUID-APPLIED ROOFING

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes: Surface preparation, supply, and installation of a liquid applied roof coating over existing metal roof panels.

1.2 REFERENCES

- A. Underwriters Laboratories (UL) - Roofing Systems and Materials Guide (TGFU R1306).
- B. ASTM International (ASTM) – Annual Book of ASTM Standards.
 - 1. ASTM D 1079 – Standard Terminology Relating to Roofing, Waterproofing, and Bituminous Materials.
 - 2. ASTM D 1653 - Standard Test Methods for Water Vapor Transmission of Organic Coating Films.
 - 3. ASTM D 6083 - Standard Specification for Liquid Applied Acrylic Coating Used in Roofing
 - 4. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials.
 - 5. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
- C. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - Architectural Sheet Metal Manual.
- D. National Roofing Contractors Association (NRCA).

1.3 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D1079 and the glossary of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual for definitions of roofing terms related to this section.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate Work to ensure that new insulation and roofing materials and building interior are kept continuously dry; that continuous, watertight, new roofing system is provided; and that adjacent areas are not adversely affected. Coordinate:
 - 1. With Owner’s Representative.
 - 2. With other trades:
 - a. To ensure that work done by other trades is complete and ready for roofing Work.
 - b. To avoid or minimize work on, or in immediate vicinity of, roofing Work in progress.
 - c. To ensure that subsequent work will not adversely affect completed roofing.
- B. Pre-installation Meeting:

3. Conduct meeting at Site.
4. Review requirements for roofing system, including:
 - a. Construction schedule.
 - b. Availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - c. Site use, access, staging, and set-up location limitations.
 - d. Forecast weather conditions.
 - e. Surface preparation and substrate condition and pretreatment.
 - f. Installation procedures.
 - g. Base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
 - h. Testing and inspection requirements.
 - i. Temporary protection and repair of roofing system.
 - j. Structural loading limitations of roof deck.
 - k. Governing regulations and requirements for insurance and certificates.
5. Contractor's Site superintendent, roofing-system manufacturer's technical representative, roofing Installer's foreperson, Owner's Representative, Architect/Engineer, and testing agency representative shall attend.

1.5 SUBMITTALS

- A. Product Data: Roofing-system manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; and application instructions.
 1. For membrane and base flashing materials, and bonding and cold, fluid-applied adhesives, primer, seaming material, lap sealant, water-cutoff mastic, walkways, and fasteners.
 2. Include temperature ranges for storage and application of materials, and special cold-weather application requirements or limitations.
 3. Include Safety Data Sheets (SDS) for information only; safety restrictions are sole responsibility of Contractor.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work; for details and fabrications not shown on Drawings.
 1. Membrane terminations and base flashings. Draw to scale.
 2. Tapered insulation, including slopes.
 3. Crickets, saddles, and tapered edge strips, including slopes.
 4. Insulation fastening patterns.
 5. Proposed temporary, watertight, tie-off details for each substrate type.
- C. Manufacturer Certificate: Signed by roofing-system manufacturer, certifying that roofing system complies with specified requirements.
 1. Written approval by roofing-system manufacturer for use and performance of membrane over specified board insulation, including that materials supplied for Project comply with requirements of cited ASTM standards. Approval should also indicate materials are suitable for ASTM E108, Class 1A roof and meet specified wind uplift classification.
 2. Submit evidence that roofing system meets requirements.
- D. Installer Qualifications:
 1. Certification signed by roofing-system manufacturer, certifying that Installer complies with manufacturer's requirements to install specified, warranted, roofing system.

2. Evidence that Installer's *existing company* has minimum five years of continuous experience in similar roofing work; list of at least five representative, successfully-completed projects of similar scope and size, including:
 - a. Project name.
 - b. Owner's name.
 - c. Owner's Representative name, address, and telephone number.
 - d. Description of work.
 - e. Coating materials used.
 - f. Project supervisor.
 - g. Total cost of roofing work and total cost of project.
 - h. Completion date.
- E. Sample Warranty: Copy of roofing-system manufacturer's warranty, stating obligations, remedies, limitations, and exclusions. Submitted with bid.
- F. Following completion of the Work:
 1. Roofing-system manufacturer's inspection report of completed roofing installation.
 2. Completed warranty from roofing-system manufacturer.
 3. Completed warranty from Installer.
 4. Maintenance program recommended for roofing system.

1.6 REGULATORY REQUIREMENTS

- A. Work shall be performed in a safe, professional manner, conforming to federal, state and local codes.
- B. UL Listing: Provide coating and component materials which have been evaluated by Underwriters Laboratories for flame-spread, and are listed in the "Underwriters Laboratory Roofing Materials and Systems Directory" for Class A construction over existing metal or other non-combustible roofing (Flame-spread shall pass ASTM E-108 and/or UL 790). Provide roof covering materials bearing UL approval marking on the container. This indicates that the material has been subjected to UL's examination, test procedures and follow-up inspection service.

1.7 DELIVERY, STORAGE & HANDLING

- A. Deliver, store, and handle materials according to manufacturer's recommendations and in such a manner as to prevent damage to materials or structure.
- B. Deliver materials to Site in original containers and packaging with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.
- C. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, handling, or installation. Reject and remove from Site new materials which exhibit evidence of moisture during application or which have been exposed to moisture.
- D. Store materials in original, undamaged containers in clean, dry, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Use canvas tarps for protection of moisture-sensitive roofing materials. Protect

stored materials from direct sunlight. Manufacturer's standard packaging and covering are not considered adequate weather protection.

1. Manufacturer transportation wrap will not be accepted as protection for stored materials.
- E. Store rolled materials on ends only, unless otherwise required by manufacturer's written instructions. Discard rolls that have been flattened, creased, or otherwise damaged.
- F. Do not store materials at locations where new roofing materials have been installed.
- G. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.
- H. Conspicuously mark damaged containers, containers with contaminated materials, or wet or damaged materials, and remove from Site as soon as possible.
- I. Remove and replace materials that cannot be applied within stated shelf life.

1.8 PROJECT CONDITIONS

- A. Verify existing dimensions and details prior to start of roofing Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor and Installer of changes.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Protect existing roofing from damage from construction activities. Repair damage to existing roofing from construction activities that result in leakage.
- D. Ensure that gutters and downspouts are operational at the end of each workday or if precipitation is forecast.
- E. Environmental Limitations: Install roofing when existing and forecast weather conditions permit roofing system to be installed according to roofing-system manufacturer's written instructions and warranty requirements.
 1. Apply roofing when substrate temperature is falling, and when substrate and ambient temperatures are within range recommended by roofing-system manufacturer.
 2. Do not proceed with installation during inclement weather except for temporary work necessary to protect building interior and installed materials. Remove temporary work and Work that becomes moisture damaged.
- F. Handle and install materials in strict accordance with safety requirements required by roofing-system manufacturer; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.
- G. Maintain adequate ventilation during preparation and application of roofing materials.

1.9 CHANGES IN WORK

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may

consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.

1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work prior to proceeding with the Work.

1.10 WARRANTY

- A. No Dollar Limit (NDL) Roof Guarantee: Manufacturers standard form, without money limitation, in which manufacturer agrees to repair leaks through the coating products on the roof caused by manufacturing defects, natural deterioration of, or workmanship in applying, the roof coating system.
 1. Warranty Duration:
 - a. Fifteen (15) Years Labor and Material
- B. Roofing Installer's Warranty:
 1. Completed warranty form at the end of the Section, signed by Installer, including:
 - a. Repair or replace components of roofing system that do not comply with requirements; that do not remain watertight; that fail in adhesion, cohesion, or general durability; or that deteriorate in a manner not clearly specified by submitted roofing-system manufacturer's data as an inherent quality of the material for the application indicated. Warranty includes defects such as blisters, ridging, and excessive surfacing loss.
 - b. Labor and materials to perform warranty Work.
 2. Warranty Duration:
 - a. Two (2) years from date of completion of roofing system.

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. GAF Commercial Roofing Products
 1. Substitutions: Not permitted

2.2 COATINGS

- A. Field of roof: two layers of HydroStop Premium Top Coat

2.3 FLASHINGS, FABRIC, AND BULKING AGENTS

- A. Flashing grade sealant: HydroStop Premium Coat Butter Grade Flashing:
 1. Application Rate: 2.0 gal per 200 linear feet with a 6 inch width, 2 coats typically required.
 2. Application Method: Putty knife, spatula and stiff bristle brush.
 3. Application Temperature (ambient): Follow manufacturer requirements
- B. Reinforcing Fabric: HydroStop PremiumCoat Fabric, 6" and 12" widths
- C. Seam Tape: United Coatings UniTape Seam Tape

- D. Gun Grade Sealant:
 - 1. FlexSeal Caulk Grade Sealant by GAF.

2.4 PRIMERS AND SEALANTS

- A. Rust Inhibitive Primer: StableRust Primer
 - 1. Application Rate: 0.33 – 0.50 gal per 100 ft² (1.34 – 2.04 L/10 m²).
 - 2. Application Method: Brush, roller or sprayer.
 - 3. Application Temperature (air, surface): 50°F (10°C) – 110°F (43°C).
 - 4. Dry Time: (to touch) 20-30 minutes at 75°F (24° C), 50% relative humidity; to coat: 1 hour at 75°F (24°C), 50% relative humidity.

2.5 AUXILIARY MATERIALS

- A. Fasteners:
 - 1. Replacement fasteners: #14 x 2" #14 Type 17 Metal Roofing Screw with EPDM rubber grommet and steel washer.
- B. Replacement Panels:
 - 1. Galvanized steel “R” panel metal roofing panels.
 - a. Thickness: 24 gauge
- C. Fascia Metal:
 - 1. Prepainted, Metallic-Coated, Steel Sheet: ASTM A755/A755M, metallic coated by hot-dip process and prepainted by coil-coating process; 24 gage.
 - a. Zinc-coated (galvanized), Steel Sheet: ASTM A653, G90 coating designation; structural quality.
 - b. Exposed, Coil-coated Finishes:
 - 1) High-performance-organic finish: Two coat thermocured system containing not less than 70 percent polyvinylidene fluoride resin by weight.
- D. End Closures:
 - 1. 1-inch-wide polyethylene foam strips that match contour of roofing panels.
 - 2. Submit product information.
- E. Pipe Boots:
 - 1. EPDM pipe boots with aluminum base that conforms to roofing panel profile.

2.6 EQUIPMENT

- A. Airless Sprayer and Accessories: As recommended by Manufacturer’s Technical Services.

PART 3 – EXECUTION

3.1 SUBSTRATE CONDITIONS

- A. Examine substrates and conditions, with Installer and roofing-system manufacturer’s representative for compliance with requirements and for other conditions affecting performance of roofing system.
 - 1. Ensure that work done by other trades is complete and ready for roofing Work, including:

- a. Roof openings and penetrations are in place and set and braced, and roof drains are securely clamped in place.
2. Verify that areas and conditions under which roofing Work is to be performed permit proper and timely completion of Work.
3. Notify Architect/Engineer in writing of conditions which may adversely affect installation or performance of roof system and recommend corrections.
4. Do not proceed with roofing Work until adverse conditions have been corrected and reviewed by Architect/Engineer.
5. Commencing roofing Work constitutes acceptance of Work surfaces and conditions.

3.2 PREPARATION OF SUBSTRATE

- A. Preparation of the Roof substrate is the responsibility of the Installer. Installer shall address and correct all of the conditions listed in this section. Examine substrates to receive new roofing. Do not proceed with installation of the coating until unsatisfactory conditions have been corrected in a manner acceptable to the manufacturer.
- B. Installation of sheet metal crickets: Sheet metal crickets shall be installed according to manufacturer's specifications [minimum 26 gauge on the high side of all curb units. Vertical ribs shall be cut a minimum of 2 inches from the cricket to allow both the cricket flanges to mount flush to the metal panel and facilitate water drainage. Cut vertical ribs shall then be treated in the same fashion as a void larger than a 1/4 inch. New crickets shall be "sealed" by placing a continuous bead of sealant under the flanges before they are mechanically attached to the curb unit and metal roof panel. Then, the cricket flanges shall be stitch-screwed to the curb unit and metal roof panel while the sealant is still wet using fasteners. This procedure shall apply to installation of all new crickets.
 1. Raising of rooftop equipment as needed to achieve proper clearance shall be included in the base bid.
- C. Repair of Dented / Damaged Panels: Installer shall repair dented and/or damaged metal roof panels. Dents shall be mechanically removed to the maximum extent possible. If ribs are broken, Installer shall cover the broken rib area with a sheet metal cap.
- D. Replacement of Fasteners: All fasteners shall be replaced. All fasteners shall be replaced with larger diameter fasteners. All missing fasteners shall be replaced with new.
- E. Thorough Cleaning / Removal of Existing Paints and Coatings: Metal substrate shall be pressure-washed with water. A minimum working pressure of 3,000 psi (20 MPa) shall be used to remove all delaminating paint and coatings dirt, dust, and waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc.). All existing silicone-based sealants shall be completely removed from roof substrate prior to application of coating system.
- F. Treatment of Rust Areas: Remove all loose, flaking or powdery rust by wire brushing if it has not been removed during the pressure washing. Use appropriate primer prior to coating. Roof panels which are corroded to the point where holes are present shall be replaced.
- G. Neoprene Pipe Boots: Complete installation of flexible boots prior to flashing work being performed for certain types of pipe penetrations. Boots shall first be sealed to the roof using a bead of sealant prior to mechanical attachment with fasteners.

3.3 FLASHING APPLICATION

- A. All flashing details, penetrations and curbs shall be 3-course flashed with either 6 inches or 12 inches fabric reinforcement embedded in flashing grade sealant in accordance with Detail Drawings. Flashing shall be feathered at the edges.
- B. Curb Flashings: All curb flashings, including cricket details, shall be flashed with at least a 12 inches (305 mm) width of reinforcing fabric and flashing grade sealant. Encapsulate all fasteners using flashing grade sealant. Reinforcing fabric shall be cut around all fasteners so the fabric lies flat.
- C. Penetrations: Flashing grade sealant shall be applied around the base of all penetrations, extending at least 6 inches (152 mm) onto the vertical and 6 inches (152 mm) onto the base. Embed a 12 inches (305 mm) width of fabric reinforcement using additional flashing grade sealant.
- D. Gutters: Trowel or brush apply sealant to gutters incorporating 6 inches fabric reinforcement at all gutter seams. Gutter shall be completely clean and dry before applying sealant.

3.4 FIELD OF ROOF APPLICATION AND RATES

- A. Preparation
 1. Before applying the coating system, an adhesion test is required to ensure an adhesion minimum of 2.0 PLI.
 2. Replace all existing panel and ridge fasteners.
 3. Pressure wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. Use cleaners as recommended by manufacturer. Allow the roof to completely dry.
 4. Treat Seams:
 - a. Horizontal seams: are to be 3-coursed with flashing grade sealant at a rate of 2.0 gal per 100 ft² embed fabric, and apply flashing grade sealant at a rate of 2.0 gal per 100 ft².
 - b. Vertical seams: All seams require treatment with 2.0 gal per 100 ft² of flashing grade sealant.
 5. Prime surface with appropriate rust inhibitive primer.
 6. Encapsulate exposed fasteners with flashing grade sealant and Fabric.
 7. Apply base layer of coating at a rate of 1.0 gal per 100 ft² . Allow at least 24 hours drying time, and then inspect for defects, flaws or areas of insufficient coverage. Correct any unsatisfactory conditions.
 8. Apply top layer of coating at a rate of 1.0 gal per 100 ft² . Allow at least 24 hours drying time, and then inspect for defects, flaws or areas of insufficient coverage. Correct any unsatisfactory conditions.
 9. System dry film thickness shall total approximately 17 mils in the field of the roof.

3.5 FIELD QUALITY CONTROL

- A. Architect/Engineer will inspect roofing system at various stages of construction and at completion.
- B. Final Roof Inspection: Arrange for roofing-system manufacturer's technical representative to inspect roofing installation on completion and submit report to Architect/Engineer. Notify

Architect/Engineer and Owner's Representative 48 hours in advance of date and time of inspection.

- C. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, and describe nature and extent of deterioration and damage in written report, with copies to Architect/Engineer and Owner's Representative.
- D. Repair or remove and replace components of membrane roofing system where test results or inspections indicate that they do not comply with specified requirements.
- E. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional Work with specified requirements.

3.6 CLEANING

- A. At the end of each workday, clean Site and Work areas and place rubbish, empty cans, rags, and other discarded materials in appropriate containers.
- B. After completing roofing Work:
 - 1. Clean spillage and soiling from adjacent surfaces using cleaning agents and procedures recommended by manufacturer of affected surface. Exercise care to avoid scratching or damage to surfaces.
 - 2. Repair surfaces stained, marred, or otherwise damaged during roofing Work.
 - 3. Clean up debris and surplus materials and remove from Site.
- C. Waste Management:
 - 1. Collect surplus roofing materials that cannot be reused and deliver to recycling or disposal facility.
 - 2. Treat materials that cannot be reused as hazardous waste and dispose of in an appropriate manner

END OF SECTION