Addendum No. 1

PROJECT: GLASS REPLACEMENT AT THE EDITH FARNSWORTH HOUSE

DATE: OCTOBER 6, 2023

RE: ADDENDUM NO. 1 TO REQUEST FOR PROPOSALS, ISSUED SEPTEMBER 21, 2023

TO: ALL BIDDERS

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated September 18, 2023 and shall be included in the relevant scopes of work and bids submitted. It is the bidder’s responsibility to determine if their work is affected by this addendum. Failure to acknowledge receipt of this Addendum on bid submission may subject the Bidder to disqualification.

The Following is AMENDED:

GENERAL NOTES AND CLARIFICATIONS:

1. The Bid Form is being reissued as part of this addendum. Revisions are as follows:
   a. Add BASE BID SECTION A Bid Item “A4” to include costs for winter protection.
   b. Revise BASE BID Bid Item “A3” to include mockup of Alternate 3 at Window #4.
   c. Add ALT-3 “Interior Coating” in ALTERNATES

DRAWINGS:

1. No Revisions

SPECIFICATIONS:

1. SECTION 09 96 00 – HIGH PERFORMANCE COATINGS
   a. Reissue Section complete.

Attachments:

1. Drawing Sheets: NONE
2. Specification Sections: 09 96 00 – HIGH PERFORMANCE COATINGS
3. Bid Form – Reissue

END OF ADDENDUM NO. 1
SECTION 00 41 44

BID FORM

PROJECT: Farnsworth House Glass and Coating Repairs

BID DUE: October 11, 2023, 5:00 pm

SUBMITTED TO:
Mr. Mark Stoner, AIA APT
Graham Gund Architect
National Trust for Historic Preservation
600 14th Street, NW Suite 500
Washington, DC 20005
MSstoner@savingplaces.org

COPY TO: Ms. Kimberly Lis
Wiss, Janney, Elstner Associates, Inc.
10 South LaSalle Street, Suite 2600
Chicago, Illinois 60603
klis@wje.com
Phone: (312) 372-0555

SUBMITTED BY: 

Bidder name

Bidder address

1.1 Bidder certifies that:

A. Bidder has carefully read and understands Bidding Documents.

B. Bidder has visited site and become familiar with local conditions under which Work is to be performed, including verifying visible conditions, such as dimensions, materials, and attachments to remain, on existing facility; and

C. Bidder has correlated Bidder’s personal observations with requirements of Bidding Documents. Bidding Documents include Project Manual and Drawings prepared by WJE and dated September 21, 2023.

1.2 Bidder shall notify Architect/Engineer of discrepancies, omissions, conflicts, or unclear meaning within Contract Documents; Architect/Engineer will interpret Contract Documents and, if necessary, issue written addendum. Contracted Work will be based on Architect/Engineer’s interpretation of Contract Documents.

1.3 Bidder acknowledges receipt of following addenda.

No. 1 Dated 10/6/23
No. Dated

Bidder agrees to fully perform Work described in Bidding Documents, in full conformance with Bidding Documents and within time frame stated, for Grand Total amount stated below.

Bid is predicated on acceptance by Owner and Architect/Engineer of following principle subcontractors.

Subcontractor name and address

Subcontractor name and address

Subcontractor name and address

Bidder may not withdraw Bid within 60 calendar days after Bid Due date.

Bidder agrees that Owner has right to waive informalities and irregularities in Bid received and to accept Bid which, in Owner’s judgment, is in Owner’s own best interests.

To obtain any and all building permits required to perform the work.

To begin the work in 2024.

Building to remain open and phased as required by Owner. Contractor to provide necessary access and protection.

To work at least five full working days per week, when weather permits.

To work within the hours of 8:00 a.m. to 5:00 p.m. and in accordance with all local laws and ordinances.

BID PROPOSAL FORM

NOTE: Bidder shall state Unit Price Bid and Total Bid amount for each unit price item. Total Bid amount for each item shall be product of Estimated Quantity by Unit Price. Unit Price Bid and Total Bid amounts shall be written numerically in spaces provided.

GRAND TOTAL shall be sum of Total Bid amounts for various items and will be Contract Sum written in Owner-Contractor Agreement.

Alternate bid amounts include labor, materials, services, and equipment necessary for completion of Alternate Work, including costs of related coordination, modification, or adjustment required to fully integrate Alternate Work into Project. Alternate bid amount is net adjustment to Contract Sum to incorporate Alternate into Work. No other adjustments will be made to Contract Sum.

ALL WORDS AND NUMBERS SHALL BE WRITTEN IN NON-ERASABLE MEDIUM.
## BASE BID PROPOSAL

Farnsworth House Coating Repairs and Glass Replacement

See Section 00 24 14, Unit Price Bid

### BASE BID

#### SECTION A

**General Conditions, Bonds, and Permits**

<table>
<thead>
<tr>
<th>Bid Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>General Conditions - All work defined in the Contract Documents other than items listed under Sections B.</td>
<td></td>
<td></td>
<td></td>
<td>Lump Sum</td>
</tr>
<tr>
<td>A2</td>
<td>Permits</td>
<td></td>
<td></td>
<td></td>
<td>Lump Sum</td>
</tr>
<tr>
<td>A3</td>
<td>Mockup of Alternate 2 and 3 over-coating procedure at one window opening (Window #4).</td>
<td></td>
<td></td>
<td></td>
<td>Lump Sum</td>
</tr>
<tr>
<td>A4</td>
<td>Provide costs for winter protection. This assumes providing an enclosure to provide the necessary conditions to perform this work during the winter months.</td>
<td></td>
<td></td>
<td></td>
<td>Lump Sum</td>
</tr>
</tbody>
</table>

#### SECTION B

**Glass Replacement**

<table>
<thead>
<tr>
<th>Bid Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Remove and replace glass at window openings #3, #5, and #15, and #16.</td>
<td></td>
<td></td>
<td></td>
<td>Lump Sum</td>
</tr>
<tr>
<td>B2</td>
<td>Remove existing coating and prepare steel surface as required. Install new high performance coating system at extents shown on drawings adjacent to window openings. Include finish sealant joints.</td>
<td></td>
<td></td>
<td></td>
<td>Lump Sum</td>
</tr>
<tr>
<td>B3</td>
<td>Remove pavers, setting bed and other material along base of window opening #16 as required to access concealed steel framing. Install new hot rubber flashing along base of wall and tie into existing membrane. Re-install pavers and setting bed.</td>
<td></td>
<td></td>
<td></td>
<td>Lump Sum</td>
</tr>
</tbody>
</table>

**Unit Costs**

<table>
<thead>
<tr>
<th>Bid Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1</td>
<td>Install sealant at steel to steel joints.</td>
<td>100</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U2</td>
<td>Replacement of 1 ⅛” x 5/8” steel bar glass stop element</td>
<td>4</td>
<td>Per piece</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U3</td>
<td>Replacement of 2” x ¾” steel bar at sill frame</td>
<td>4</td>
<td>Per piece</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U4</td>
<td>Install filler material to restore steel profile</td>
<td>20</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Wiss, Janney, Elstner Associates, Inc.**

**Project Grand Total** (Base Bid Subtotal) $________________

**Project Grand Total** (in words) ________________________________________________________ dollars

**BASE BID CONSTRUCTION PERIOD:** Apply for permits within ____ calendar days after award of contract and start work within ____ calendar days after notice of Contract award and complete Base Bid Work within ____ calendar days after start date.

<table>
<thead>
<tr>
<th>Alternates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bid Item</strong></td>
</tr>
<tr>
<td>ALT-1</td>
</tr>
<tr>
<td>ALT-1A</td>
</tr>
<tr>
<td>ALT-1B</td>
</tr>
<tr>
<td><strong>Exterior Coating</strong></td>
</tr>
<tr>
<td>ALT-2</td>
</tr>
<tr>
<td>2A</td>
</tr>
<tr>
<td>2B</td>
</tr>
<tr>
<td>2C</td>
</tr>
<tr>
<td>2D</td>
</tr>
<tr>
<td><strong>Interior Coating</strong></td>
</tr>
<tr>
<td>ALT-3</td>
</tr>
</tbody>
</table>
3A Remove glass stops at each window opening. Abrasive blast and install new high performance coating system. Provide temporary protection and measures to keep existing glass in place. Provide new coated stainless steel fasteners.  

Lump Sum

3B All exposed areas of steel framing to be prepared and over-coated with a finish layer of a high performance coating system.  

Lump Sum

3C Remove and replace sealant cap bead at window openings.  

Lump Sum

3D (Unit Price) Isolated coating patch repairs (assume patches are 1”x1”)

24 locations

**TIME AND MATERIAL:** To address changes in the work not indicated by the Contract Documents and Specifications or Unit Prices, and upon written instructions of the Owner, the following prices shall prevail in accordance with General Conditions.

Labor - Include all profit and overhead. All trades at their prevailing hourly rate plus _____ percent (%) for profit and overhead.

*Material Costs - At cost plus _____ percent (%) for profit and overhead.

**LABORATORY TESTING ESTIMATE:**
List an estimated cost for concrete and traffic coating testing (to be paid by Owner): $__________

________________________________________
Proposed Testing Agency name and address

Submitted By: ____________________________

Signature

Title

Company Seal (if Bidder is a corporation)
BIDDER'S RESUME

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

________________________________________________________________________
Client:  
Building:  
Address:  
Phone:  

________________________________________________________________________
Client:  
Building:  
Address:  
Phone:  

________________________________________________________________________
Client:  
Building:  
Address:  
Phone:  

________________________________________________________________________
Client:  
Building:  
Address:  
Phone:  


END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. Remove all existing coating at indicated steel surfaces.
   1. Base Bid: Abrasive blast, and apply new coating to the steel components of Window #3, #5, #15, and #16.
   2. Alternate 1: Abrasive blast, and apply new coating to the steel components of Window #2, #6, #10, and #13.
   3. Alternate 2: Install coating at all exposed steel framing members not addressed by glass replacement repair.
   4. Alternate 3: Install coating at all exposed steel framing members not addressed by glass replacement repairs.

B. Related Sections include the following:
   1. Section 055000 – Metal Fabrications
   2. Section 088000 – Glazing

1.2 REFERENCES

A. All local, state, and water department ordinances and regulatory requirements.

B. United States Environmental Protection Agency
   1. Resource Conservation Recovery Act

C. Illinois Lead Poisoning Prevention Act, 410 ILCS 45 and 77

D. Code of Federal Regulations:
   1. 40 CFR 59, Subpart D (EPA Method 24), Volatile Organic Compounds (VOC) content limitations
   3. 29 CFR 1910.134, toxic exposure limits


F. The Society for Protective Coatings (SSPC)
   1. SSPC-SP 1, Solvent Cleaning
   2. SSPC-SP 2, Hand Tool Cleaning
   3. SSPC-SP 3, Power Tool Cleaning
   4. SSPC-SP 7, Brush-Off Blast
   5. SSPC-SP 10, Near White Blast Cleaning
1.3 SUBMITTALS

A. Before work begins, submit three copies of the following information pertaining to materials to be provided, for approval:
   1. List of materials to be provided, identified by manufacturer’s name, product name, or stock number, and indicating surfaces to which they are to be applied. Maintain one copy of list where work is being performed.
   2. Manufacturer’s product data sheets and manufacturer’s safety data sheets for coatings and related materials, and other potentially hazardous materials as defined in Federal Standard 313.
   3. Manufacturer’s mixing, handling, and application instructions for coatings and related materials.
   4. Schedule indicating significant dates such as delivery, removal, completion of shop work, finish completion, etc.

B. Samples for Verification: For each type of coating of the system and in each color, gloss, and texture indicated.
   1. Submit three samples on steel backing, 8 inches square.
   2. Step coat on samples to show each coat required for system.
   3. Label each coat of each sample.
   4. Label each sample for location and application area.

C. Protection Plan: Submit to Owner three copies of a plan of action for historic elements, environmental monitoring, testing, containment (enclosures), collection, and disposal of materials.

D. Coating manufacturer’s approved list of products and application equipment to be used on this project.

E. Qualification Data: For contractor and personnel performing coating application:
   1. Documentation of required certifications.
   2. List of projects similar to work specified in this Section, completed in the past five years. Include description of each project, surface area, cost of the work, coating system description, and Owner contact with address and telephone number.
   3. Documentation that applicator has previously applied the specified manufacturer’s coating system or similar systems in production quantities similar to this Project. Include list of such projects with description, surface area, coating system description, and Owner contact with address and telephone number.
   4. Documentation of how long applicator has been continuously in the coating application business under the current name and organization.
   5. Documentation that job foreman has a minimum of five years experience as a foreman.
   6. Documentation that painters have a minimum of five years experience as applicators of coatings to steel.

F. Manufacturer’s decoding information so field personnel can verify shelf lives and other coded information.

1.4 QUALITY ASSURANCE

A. Contractor Qualifications:
1. Firm performing work must have a minimum of ten years experience in the preparation and coating of exterior steel facades.
2. Personnel performing work must have a minimum of five years experience in the preparation and coating of exterior steel facades.
3. Supervisory Personnel must have a minimum of five years experience in supervising the coating of exterior steel facades. Apprentices shall be under direct supervision of an experienced supervisor.

B. Field Quality Control: Work in place shall be subject to inspection testing. Replace unacceptable work with new, acceptable work.

C. Prepare surfaces and apply coatings in conformance with the manufacturer’s printed instructions including film thickness, curing and recoating times, temperature and humidity windows, mixing, thinning, pot life, and application techniques.

D. Review specifications for requirements affecting work of this trade. Bring conflicts between these specifications and coating manufacturer’s requirements or specifications, or other pertinent specifications, to the attention of the Architect/Engineer in writing immediately.

E. Apply coatings free of flow lines, streaks, blisters, or other surface imperfections in the dry-film state on the exposed surfaces.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Packing, Shipping, Handling, and Unloading: Deliver materials to job site in original, new, and unopened packages and containers bearing the manufacturer’s name and label, with name of material and color; brand name, stock number or brand code, and date of manufacture; contents by volume for major pigment and binder constituents; thinning and application instructions; safety label requirements; and batch numbers.

B. Acceptance at Site: Clearly identify damaged or deteriorated materials and do not used on this Project. Promptly remove rejected and noncomplying materials from the premises.

C. Storage and Protection: Store materials in tightly closed containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 50 degrees Fahrenheit and not more than 95 degrees Fahrenheit, unless required otherwise by manufacturer’s instructions. Protect storage area from exposure to direct sunlight, heat, sparks, flames, and weather.
   1. Maintain containers in clean condition, free of foreign materials and residue.
   2. Store containers so manufacturer’s labels are clearly displayed.
   3. Remove rags and waste from storage areas daily.

D. Waste Management and Disposal: Comply with applicable safety codes and regulations that govern the work, including Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) regulations covering waste and wastewater disposal and VOC content.

1.6 PROJECT CONDITIONS

A. Locate and operate equipment, material, and appliances required for completion of work to provide for maximum efficiency, public safety, and persons employed at the site, and to prevent
damage to new and existing construction, in accordance with OSHA and applicable safety codes and regulations.

B. Confine operations at Project site to areas permitted by laws, permits, contract, the Owner, and Contractor’s safety plan.

C. Assume full responsibility for protection and safekeeping of products stored on premises, and for their proper use.

D. Provide Architect/Engineer and Owner with access to the work.

E. Where conditions are uncovered that are not anticipated by the specifications, notify Architect/Engineer and Owner in writing immediately, before repairs are initiated.

F. Apply coatings when temperature of surfaces to be coated and surrounding air temperatures are between 50 and 95 degrees Fahrenheit unless required otherwise by manufacturer’s instructions.

G. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 degrees Fahrenheit above the dew point; or to damp or wet surfaces. Allowable minimum relative humidity shall be determined by the manufacturer.

1.7 JOB SITE REFERENCES

A. Maintain at least one copy of each referenced standard and this Specification at the job site and make available to Architect/Engineer and Owner prior to surface preparation or coating application work.

B. Maintain on site a complete file of MSDS and manufacturer’s product and application data sheets for each coating material, thinner, cleaner, and solvent intended for use.

1.8 SEQUENCING AND SCHEDULING

A. Schedule application of coatings so that work performed by other trades or on surfaces adjacent to area of work of this Section is complete. Assure that this work does not affect the performance or final appearance of work in this Section.

B. Schedule surface preparation and painting so that dust and other contaminants from the preparation process will not fall onto uncured, newly painted surfaces.

1.9 WARRANTY

A. General
   1. Coating failures shall be repaired/corrected within the warranty period at no cost to the Owner.

B. New Coating System on Steel
   1. For a period of two years, the contractor shall warrant:
      a. That the coating will not check, crack, blister, peel, delaminate, or allow exterior water to penetrate the coating. Blisters will be evaluated using ASTM D714, Standard Test Method for Evaluating Degree of Blistering of Paints. Blisters less than a rating of No. 10 shall be considered a defect and must be repaired.
b. Will not allow the substrate to corrode in excess of Rust Grade 10 (Greater than 0.0 percent and up to 0.1 percent) of the surface area being coated as measured in accordance with ASTM D610, *Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces*.

2. For a period of five years, the manufacturer shall warrant that the coating:
   a. Will not check, crack, blister, peel, delaminate, excessively chalk, or allow exterior water to penetrate the coating.
      1) Evaluate chalking in accordance with ASTM D4214, *Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films*. Chalking less than a rating of No. 8 shall be considered a defect and must be repaired.
      2) Blisters will be evaluated using ASTM D714. Blisters less than a rating of No. 10 shall be considered a defect and must be repaired.
   b. Will not allow the substrate to corrode in excess of Rust Grade 6 (Greater than 0.3 percent and up to 1.0 percent) of the surface area being coated as measured in accordance with ASTM D610.
   c. Will not change color more than 5 ∆E CIE units as determined in accordance with ASTM D 2244, *Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates*, by comparing the affected exposed coating cleaned with water and a soft cloth with unexposed Original Project Color Standards maintained by the manufacturer and the Owner. An average of five readings per 100 square feet.
   d. Will not exhibit loss of gloss in excess of 20 units as measured by a gloss meter in accordance with ASTM D523, *Standard Test Method for Specular Gloss*, with 60 degree geometry, average of five readings per 100 square feet.

3. For a period of fifteen years, the manufacturer shall warrant that coating:
   a. Will not check, crack, blister, peel, delaminate, excessively chalk, or allow exterior water to penetrate the coating.
      1) Evaluate chalking in accordance with ASTM D4214. Chalking less than a rating of No. 7 shall be considered a defect and must be repaired.
      2) Blisters will be evaluated using ASTM D714. Blisters less than a rating of No. 10 shall be considered a defect and must be repaired.
   b. Will not allow the substrate to corrode in excess of Rust Grade 4 (Greater than 3.0 percent and up to 10.0 percent) of the surface area being coated as measured in accordance with ASTM D 610.
   c. Will not change color more than 12 ∆E CIE units as determined in accordance with ASTM D 2244 by comparing the affected exposed coating cleaned with water and a soft cloth with unexposed Original Project Color Standards maintained by the manufacturer and the Owner, average of five readings per 100 square feet.
   d. Will not exhibit loss of gloss in excess of 24 units as measured by a gloss meter in accordance with ASTM D523 with 60 degree geometry, average of 5 readings per 100 square feet.
PART 2 - PRODUCTS

2.1 ENVIRONMENTAL GUIDELINES

A. Provide containment enclosure that will protect property from contamination and dust or hazardous materials. Collect removed hazardous materials. Filter contaminants from spent water.

B. Monitor airborne coating debris and dust in accordance with all applicable federal, state, and local regulatory codes.

C. Collect and dispose of toxic or hazardous debris in accordance with the USEPA’s Resource Conservation Recovery Act, in addition to all applicable federal, state and local regulatory codes.

2.2 PAINT STRIPPER

A. PeelAway 1 by Dumond Chemicals

2.3 COATING MATERIALS

A. Coating System (Base Bid/Alternate 1 – Glass Replacement)

   a. Primer: Tnemec Series 90-97 Tneme-Zinc
   b. Stripe Coat Corners: Tnemec Series N69 Hi-Build Epoxoline II, 2 to 6 mils DFT
   c. Intermediate: Tnemec Series N69 Hi-Build Epoxoline II, 4 to 6 mils DFT
   d. Filler: Tnemec Series 215 Surfacing Epoxy: Apply multiple coats to achieve original profile of steel
   e. Intermediate: Tnemec Series N69 Hi-Build Epoxoline II, 4 to 6 mils DFT
   f. Topcoat: Tnemec Series 1072V-00WH Fluoronar, two coats, each 2 to 3 mils DFT

B. Coating System (Alternate 2 – Over Coating)

   a. Intermediate: Tnemec Series N69 Hi-Build Epoxoline II, 4 to 6 mils DFT
   b. Topcoat: Tnemec Series 1072V-00WH Fluoronar, two coats, each 2.0 to 3.0 mils DFT

C. Glass stop steel bars (Alternate 2 and 3)

   a. Primer: Tnemec Series 90-97 Tneme-Zinc
   b. Intermediate: Tnemec Series N69 Hi-Build Epoxoline II, 4 to 6 mils DFT
c. Filler: Tnemec Series 215 Surfacing Epoxy: Apply multiple coats to achieve original profile of steel
d. Intermediate: Tnemec Series N69 Hi-Build Epoxoline II, 4 to 6 mils DFT
e. Topcoat: Tnemec Series 1072V-00WH Fluoronar, two coats, each 2 to 3 mils DFT

D. Isolated coating patch repairs (Alternate 2 – As required)
      a. Primer: Tnemec Series 135 Chembuild, 4 to 6 mils DFT
      b. Intermediate: Tnemec Series N69 Hi-Build Epoxoline II, 4 to 6 mils DFT

E. Coating System stainless steel fasteners
      a. Primer: Tnemec Series N69 Hi-Build Epoxoline II, 4 to 6 mils DFT
      b. Topcoat: Tnemec Series 1072V-00WH Fluoronar, two coats, each 2.0 to 3.0 mils DFT

F. Coating System (Alternate 3 – Interior Over Coating)
      a. Topcoat: Tnemec Series 1072V-00WH Fluoronar, two coats, each 2.0 to 3.0 mils DFT

2.4 ACCESSORIES
   A. Degreaser: trisodium phosphate cleaner or approved equal

PART 3 - EXECUTION

3.1 EXAMINATION
   A. Examine substrates and conditions, with Applicator present, for compliance with requirements and conditions affecting performance of work.
      1. Atmospheric Conditions: Follow manufacturer’s directions for allowable atmospheric conditions. Do not apply coatings if the following variables are likely to exceed or fall short of manufacturer’s parameters.
         a. Measure dew point with a psychrometer or other suitable instrument prior to application.
b. Prior to application, perform surface temperature readings on substrate that is to receive coating.
c. Measure ambient air temperature and relative humidity in area of work prior to coating application.

2. Verify compatibility with and suitability of substrates, including compatibility with and durability of existing finishes or primers.
3. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
4. Coating application indicates acceptance of surfaces and conditions.

3.2 PROTECTION

A. Protect existing construction and work in place from damage resulting from operations related to the work including removals, reinstallation, and the storage, preparation, handling, and application of coating materials.

B. Exercise caution in performing work so as not to damage other building and site elements. Protect the building and site elements from damage.

C. In areas where coating systems are to be applied, protect surrounding construction, including existing paving, from drippage or other effects of coatings.

D. Repair materials damaged by coating process to the satisfaction of the Architect/Engineer without additional cost to the Owner.

E. Remove protection materials carefully and thoroughly upon completion of work. Repair nail holes, adhesives, etc., to leave surrounding surfaces in the same condition as that previous to coating operations.

F. Protect workers, pedestrians, animals, plants, vehicles, other property, etc. Work required in this Section includes use of chemicals that can harm workers, pedestrians and other persons, animals, and plants, and damage vehicles, and other property.

G. Damage to adjacent property, buildings, vehicles, site features, etc., caused by coating operations shall be repaired at no additional cost to the Owner.

3.3 PREPARATION

A. General:
1. Clean surfaces of all visible oil, grease, dust, dirt, mill scale, rust, coatings, oxides, corrosion products and any other substances that may interfere with the functioning of the coating system.
2. Remove plates, machined surfaces, and similar items already in place that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.
3. Maximum allowable chloride content on the surface: 2 micrograms per square centimeter. Use chloride test kit to determine chloride content on surface. If chloride levels are found to exceed this limit, notify Architect/Engineer prior to proceeding.
4. After completing coating operations, reinstall items that were removed; use workers skilled in the trades involved.
B. Base Bid and Alternate 1: Prepare surfaces in accordance with SSPC-SP 10, Near White Blast Cleaning. Collect all removed materials for proper disposal off-site.

C. Alternate 2:
1. Corrosion repair locations: SSPC-SP2 Hand Tool Cleaning or SSPC-SP3 Power Tool Cleaning depending on location.
2. Removed glass stop steel bars: SSPC-SP 10, Near White Blast Cleaning.
3. Exposed steel framing with existing finish coat present: SSPC-SP2 Hand Tool Cleaning or SSPC-SP3 Power Tool Cleaning, depending on location.

D. Prepare stainless steel fastener heads in accordance with SSPC-SP7 Brush-Off Blast.

E. Prepare steel surfaces with a 1.5 mil surface profile or as recommended by coatings manufacturer.

3.4 APPLICATION

A. Apply coating to prepared surfaces as soon as possible and no later than 4 hours after surface preparation.

B. Mix coatings in accordance with manufacturer’s printed instructions.

C. Apply coatings in accordance with the requirements of SSPC-PA1, *Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel*, and the manufacturer’s written instructions. In the event of a conflict, the requirements of this specification, the manufacturer’s instructions, and PA1 shall prevail in that order.

D. Apply coatings by spray according to manufacturer’s written instruction.

E. Apply coatings in accordance with manufacturer’s coverage rate.

F. Follow application of primer and intermediate coat, repair corroded metal:
   1. Fill pitted areas, small holes, minor undulations, and existing screw holes with an approved filler and sand smooth to eliminate voids and minimize the risk for the accumulation of moisture and to provide a level surface for matching to the new steel bar window framing. If filler application is not accomplished within the curing time limits recommended by the manufacturer, grind out the material that has been placed and repeat the procedure.
   2. Coordinate the installation of the filler with the preparation of the surrounding steel elements and the coatings.
   3. Corrosion:
      a. Prepare metal surface in accordance with SSPC-SP 10, Near White Blast Cleaning.
      b. Carefully and completely fill the corrosion pit with filler.

G. Following curing of filler, spot apply epoxy (second intermediate coat) to cover repairs.

H. Apply top coat to completely hide the underlying coats. If not completely covered, apply an additional top coat.
I. The minimal drying time between coats and the recoating shall be in compliance with the manufacturer’s printed instructions. Do not exceed 72 hours between succeeding coats or as recommended by the manufacturer. If the recoating is not performed with the manufacturer’s specified time, roughen the previously applied coatings with 100-150 grit sandpaper prior to coating. Ensure that each coat is thoroughly dry before applying succeeding coats.

J. Apply coatings according to manufacturer’s written instructions. Coat back sides of sills, stops, and frame.

K. Follow manufacturer’s written instructions for coating dry and wet film thickness.

L. If undercoats or other conditions are visible through final coat, apply additional touch-ups until cured film has a uniform coating finish, color, and appearance.

M. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp glass lines and color breaks.

3.5 FIELD QUALITY CONTROL AND TESTING

A. Provide the Architect/Engineer and Owner with access to the work.


C. Coating Process:
   1. Permit Architect/Engineer to conduct tests on coated surfaces if deemed necessary by Architect/Engineer. Tests will be performed to determine if coatings are being applied according to manufacturer’s instructions and approved field samples.
   2. Reccoat rejected area without additional cost to Owner if Architect/Engineer determines that coated surfaces are noncompliant to manufacturer’s instructions and approved field samples.
   3. Reccoat affected area without additional cost to Owner if Architect/Engineer determines that coating has not been satisfactory implemented.

3.6 CLEANING

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. Immediately clean up spatter, spillage, and misplaced paint to restore affected area to its original condition. Do not scratch, damage, or deface adjacent finished surfaces.

C. At completion of work, promptly remove from Project site materials, supplies, equipment, debris, and rubbish from work performed under this Section. Leave area of work in a clean condition acceptable to Owner.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.
E. Touch-up and repair coating damaged during transportation or handling.

3.7 PROTECTION

A. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Architect/Engineer, and leave in an undamaged condition.

END OF SECTION