



QUATTROCCHI KWOK  
ARCHITECTS

# LIBERTY HIGH SCHOOL NEW CLASSROOMS

## Addendum 04

9/8/2022

**DSA File Number: 07-H4**  
**DSA Application Number: 01-119994**  
**PTN: 61721-83**

**Owner:**  
Liberty Union High School District  
20 Oak Street  
Brentwood, CA 94513

**Architect:**  
Quattrocchi Kwok Architects  
636 Fifth Street  
Santa Rosa, California 95404  
P: 707.576.0829  
F: 707.576.0295

**Architect's Project No.: 1925.00**

### **To: Prospective Bidders**

The following changes, modifications and additions to Project Manual and Drawings described below are made a part thereof and are subject to all of the requirements thereof as if originally specified. The Bidder must acknowledge receipt of the Addendum in the space provided on the Bid Form; failure to do so may subject the Bidder to disqualification.

**Table of Contents - Addendum 04**

This Addendum consists of 4 pages and the attachments as listed below dated September 8, 2022.

Deleted Text is shown in ~~strikeout type~~.

Added Text is shown in *bold italicized type*.

**ATTACHMENTS:**

**Project Manual**

ADDENDUM 4		BID FORM
ADDENDUM 4	07 8123	INTUMESCENT FIRE PROTECTION

**ADD Drawings** (8.5 inch by 11 inch & 11 inch by 17 inch):

None.

**Drawings: (30 inch by 42 inch)**

None.

**Project Record**

None.

**End of Table of Contents**

**A. CHANGES TO PREVIOUS ADDENDA**

None.

**B. CHANGES TO THE BIDDING AND CONTRACT REQUIREMENTS**

**Item No. 4. 01**

The following document denoted Addendum 04 supersedes previous published section.  
Document: BID FORM

**C. CHANGES/ ADDITIONS TO THE SPECIFICATIONS**

**Item No. 4. 02**

The following documents denoted Addendum 04 is added to the project manual.

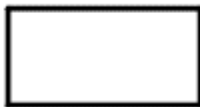
Section 07 8123 - INTUMESCENT FIRE PROTECTION

Revise Table of Contents accordingly.

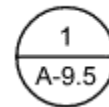
**D. CHANGES/ ADDITIONS TO THE DRAWINGS**

**Item No. 4. 02**

Revise Drawing A-A4.1 Building A - Roof plan as shown below



MODIFIED BITUMEN ROOFING O/ TAPPERED  
INSULATION O/ MTL FRAMING



**E. BIDDERS QUESTIONS**

**Item No. 4. 03**

Q: The plans are not clear if Bldg. A required full tapered insulation to slope the roof to the drains only one cut section shows full tapered between grid lines 5&7 and A&B. No other cuts sections show if the lower roof decks are to be full tapered. Please advise on the intent of the use of tapered insulation.

A: The roof framing on building A is flat. See changes to the drawings

**Item No. 4. 04**

Q: Is the flat roof fully tapered at Liberty High School? Please confirm.

A: At Building A the roof framing is flat and will require tapered insultation throughout. Building B is

sloped framing and will only need the required ridged insulation.

**Item No. 4. 05**

- Q: Per the Interior Painting Spec (09 91 23), in section 3.11.F, Exposed Interior Steel is to receive Intumescent Mastic Fireproofing. I'd like to confirm that the steel columns in the classrooms are to receive Intumescent paint. If so, hour-rating information is needed as well as an intumescent paint spec.
- A: Please refer to the attached revised Specification Section 07 8123 Intumescent Fire Protection. Intumescent paint is only required on structural steel members on the 1-hour rated wall between the elevator and the machine room.

**END OF ADDENDUM**

**ADDENDUM 04**

**BID FORM**

**FOR**

**New Classroom Buildings**

**Liberty High School**

**850 Second Street, Brentwood, CA 94513**

**Project No. 1925.00**

**Bid No. U2225L**

**FOR**

**LIBERTY UNION HIGH SCHOOL DISTRICT**

CONTRACTOR  
NAME:

\_\_\_\_\_

ADDRESS:

\_\_\_\_\_

\_\_\_\_\_

TELEPHONE:

(       ) \_\_\_\_\_

FAX:

(       ) \_\_\_\_\_

EMAIL

\_\_\_\_\_

TO: Liberty Union High School District, acting by and through its Governing Board, herein called "District".

1. Pursuant to and in compliance with your Notice Inviting Bids and other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the Contract, the local conditions affecting the performance of the Contract, the cost of the work at the place where the work is to be done, with the Drawings and Specifications, and other Contract Documents, hereby proposes and agrees to perform within the time stipulated, the Contract, including all of its component parts, and everything required to be performed, including its acceptance by the District, and to provide and furnish any and all labor, materials, tools, expendable equipment, and utility and transportation services necessary to perform the Contract and complete all of the Work in a workmanlike manner required in connection with the construction of:

**LIBERTY HIGH SCHOOL NEW CLASSROOM BUILDINGS SCOPE OF WORK (as described below):**

This project is for the demolition of three (3) existing single-story buildings (currently designated as Buildings B, C, and D) and construction of two (2) new classroom buildings for Liberty High School in Brentwood, California.

Building A is a two-story, steel-framed, Type II-B construction building with 14 general education classrooms at 960-sf each; 2 Special Day classrooms at 1,045-sf each, each with a restroom and sensory room; shared staff prep room and restroom; elevator and machine room; and utility rooms, including fire riser, electrical, tele/com and custodial closets. The second floor of Building A will be accessible by an elevator as well as exterior stairs and walkway at 2,715-sf.

Building B is a single-story, wood-framed, Type V-B construction building with 2 science labs at 1,656-sf; two (2) multi-stall student restrooms; and maintenance/custodial accessory spaces.

The project site will be accessible by an upgraded, adjacent drop-off lane. The two buildings will form a learning and gathering courtyard and have 2 gated entry points to control access after hours. No new parking is required.

Both buildings will be E-occupancy, with the pupil per square foot load factor for general education rooms being 20 and 50 for science labs. Exterior finishes include cement plaster, fiber cement boards, aluminum storefront windows, metal sunshade canopies, built-up roof and standing seam metal roof. Interior finishes including custom teaching-wall casework, painted gyp bd walls with tackable surface at general education classrooms, linoleum and carpeted flooring. Ceilings shall be suspended acoustic ceiling tile at classrooms, exposed structure ceilings at labs, and painted gypsum board at restrooms and utility areas.

**For the:**

**LIBERTY HIGH SCHOOL NEW CLASSROOM BUILDINGS**

BID SCHEDULE NO. U2225L

Liberty High School New Classroom Buildings

in the District described above, all in strict conformance with the drawings and other Contract Documents on file at the Facilities Office of said District for amounts set forth herein.

2. BIDDER ACKNOWLEDGES THE FOLLOWING BID CLARIFICATION/ADDENDUM:

Bid Clarification Number	Bid Clarification Number	Bid Clarification Number	Addendum Number	Addendum Number	Addendum Number	Addendum Number
_____	_____	_____	_____	_____	_____	_____

Acknowledge the inclusion of all addenda issued prior to bid in the blanks provided above. Your failure to do so may render your bid non-responsive.

3. TOTAL CASH PURCHASE PRICE IN WORDS & NUMBERS:

Base Bid:

\_\_\_\_\_ DOLLARS  
 (\$ \_\_\_\_\_)

Alternative #1:

\_\_\_\_\_ DOLLARS  
 (\$ \_\_\_\_\_)

Total Bid:

\_\_\_\_\_ DOLLARS  
 (\$ \_\_\_\_\_)

Low Bid determination: The Low bid will be determined based on the base bid plus the Alternative(s)

4. TIME FOR COMPLETION: The District may give a notice to proceed within ninety (90) days of the award of the bid by the District. Once the Contractor has received the notice to proceed, the Contractor shall complete the work in the time specified in the Agreement. By submitting this bid, Contractor has thoroughly studied this Project and agrees that the Contract Time for this Project is adequate for the timely and proper completion of the Project. Further, Contractor has included in the analysis of the time required for this Project, Rain Days, Governmental Delays, and the requisite time to complete Punch List.

In the event that the District desires to postpone giving the notice to proceed beyond this ninety (90) day period, it is expressly understood that with reasonable notice to the Contractor, giving the notice to proceed may be postponed by the District. It is further expressly understood by the Contractor, that the Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of giving the notice to proceed.

If the Contractor believes that a postponement will cause a hardship to it, the Contractor may terminate the contract with written notice to the District within ten (10) days after receipt by the Contractor of the District's notice of postponement. Should the Contractor terminate the Contract

as a result of a notice of postponement, the District shall have the authority to award the Contract to the next lowest responsible bidder, if applicable.

It is understood that the District reserves the right to reject any or all bids and/or waive any irregularities or informalities in this bid or in the bid process. The Contractor understands that it may not withdraw this bid for a period of ninety (90) days after the date set for the opening of bids.

5. Attached is bid security in the amount of not less than ten percent (10%) of the bid:

Bid bond (10% of the Bid), certified check, or cashier's check (circle one)

6. The required List of Designated Subcontractors is attached hereto.

7. The required Non-Collusion Declaration is attached hereto.

8. The Substitution Request Form, if applicable, is attached hereto.

9. It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the District a Contract in the form attached hereto in accordance with the bid as accepted, and that he or she will also furnish and deliver to the District the Performance Bond and Payment Bond, all within five (5) calendar days after award of Contract, and that the work under the Contract shall be commenced by the undersigned bidder, if awarded the Contract, by the start date provided in the District's Notice to Proceed, and shall be completed by the Contractor in the time specified in the Contract Documents.

10. The names of all persons interested in the foregoing proposal as principals are as follows:

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(IMPORTANT NOTICE: If bidder or other interested person is a corporation, state the legal name of such corporation, as well as the names of the president, secretary, treasurer, and manager thereof; if a co-partnership, state the true names of the firm, as well as the names of all individual co-partners comprising the firm; if bidder or other interested person is an individual, state the first and last names in full.)

11. PROTEST PROCEDURES. If there is a bid protest, the grounds shall be submitted as set forth in the Instructions to Bidders.

12. The undersigned bidder shall be licensed and shall provide the following California Contractor's license information:

License Number: \_\_\_\_\_

License Expiration Date: \_\_\_\_\_



Name on License: \_\_\_\_\_

Class of License: \_\_\_\_\_

DIR Registration Number: \_\_\_\_\_

If the bidder is a joint venture, each member of the joint venture must include the above information.

13. Time is of the essence regarding this Contract, therefore, in the event the bidder to whom the Contract is awarded fails or refuses to post the required bonds and return executed copies of the Agreement form within five (5) calendar days from the date of receiving the Notice of Award, the District may declare the bidder's bid deposit or bond forfeited as damages.

14. The bidder declares that he/she has carefully examined the location of the proposed Project, that he/she has examined the Contract Documents, including the Plans, General Conditions, Supplemental Conditions, Addenda, and Specifications, all others documents and requirements that are attached to and/or contained in the Project Manual, all other documents issued to bidders and read the accompanying instructions to bidders, and hereby proposes and agrees, if this proposal is accepted, to furnish all materials and do all work required to complete the said work in accordance with the Contract Documents, in the time and manner therein prescribed for the unit cost and lump sum amounts set forth in this Bid Form.

15. DEBARMENT. In addition to seeking remedies for False Claims under Government Code section 12650 et seq. and Penal Code section 72, the District may debar a Contractor pursuant to Article 15 of the General Conditions if the Board, or the Board may designate a hearing officer who, in his or her discretion, finds the Contractor has done any of the following:

- a. Intentionally or with reckless disregard, violated any term of a contract with the District;
- b. Committed an act or omission which reflects on the Contractor's quality, fitness or capacity to perform work for the District;
- c. Committed an act or offense which indicates a lack of business integrity or business honesty; or
- d. Made or submitted a false claim against the District or any other public entity. (See Government Code section 12650, et seq., and Penal Code section 72)

16. DESIGNATION OF SUBCONTRACTORS. In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code section 4100 et seq.) and any amendments thereof, each bidder shall list subcontractors on the District's form Subcontractor list. This subcontractor list shall be submitted with the bid and is a required form

I agree to receive service of notices at the e-mail address listed below.

I the below-indicated bidder, declare under penalty of perjury that the information provided and representations made in this bid are true and correct.

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Proper Name of Company

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Liberty High School New Classroom Buildings  
Liberty Union High School District

Bid Form  
Page 6

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Name of Bidder Representative

---

Street Address

---

City, State, and Zip

---

( )

Phone Number

---

( )

Fax Number

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E-Mail

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature of Bidder Representative

**NOTE:** If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his signature shall be placed above.

All signatures must be made in permanent blue ink.

**ADDENDUM 04**  
**SECTION 07 8123**

**INTUMESCENT FIRE PROTECTION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Thin-film intumescent fire-resistive coating for structural steel, including surface preparation.
  - 1. Interior items and surfaces concealed from view behind other finishes.
- B. Protective and/or decorative topcoats.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 05 1200 - Structural Steel Framing. Primers underlying intumescent paint finishes.
- C. Section 09 9000 - Painting and Coatings: Submittals for top coat color selection and general installation requirements for top coat.

**1.03 REFERENCE STANDARDS**

- A. ASTM D2240 - Standard Test Method for Rubber Property--Durometer Hardness.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- D. ASTM E605 - Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members, 2000 ed.
- E. ASTM E736 - Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members, 2000 ed.
- F. ASTM E761 - Standard Test Method for Compressive Strength of Sprayed Fire-Resistive Material Applied to Structural Members, 2000 ed.
- G. California Code of Regulations, Title 24, Part 2, California Building Code (CBC), International Building Code.
- H. California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
- I. NFPA 251
- J. SSPC-Paint Standards: Steel Structures Painting Council.
- K. SSPC-PA 2 - Procedure For Determining Conformance To Dry Coating Thickness Requirements.
- L. UL Fire Resistance Directory.
- M. UL 263.

**1.04 DEFINITIONS**

- A. Structural Frame: Structural elements of the buildings resisting gravity and lateral loads including, but not limited to the following; beams, columns, girders, diagonal and horizontal braces, tubular and HSS members and associated connections.

### **1.05 SUBMITTALS**

- A. See Section 01 3300 - Submittals, for submittals procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Performance characteristics and test results.
  - 2. Preparation instructions and recommendations, including ambient conditions required.
  - 3. Storage and handling requirements and recommendations.
  - 4. Installation methods.
- C. CAL-GREEN Submittals: Product Data – VOC Limits: For adhesives sealants, fillers, primers and coatings, documentation including printed statement of VOC contents, comply with limits specified in related section.
  - 1. Product Data - Low/No-VOC Paints and Coatings. Provide certification that all primers and coatings meet VOC emission limits specified in Section 01 6116. List manufacturer, brand, application, type (flat or non-flat), number of gallon, and the VOC emissions in grams/liter. Include MSDS and product data sheet indicating VOC limits for each product provided.
- D. Schedule of Fireproofing: List w/d rating for each member to be fireproofed, fire rating of the protected member, fireproofing test or design number, and certification that material is classified or listed for the type and size of member to be fireproofed. Indicate published UL Report tabulated application thickness values for member sizes shown on the drawings and indicate required application thickness for each member.
- E. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, acceptable wind velocity during application, supplementary instructions given, and methods of correcting non-conforming work.
- F. Certificates: Certify that intumescent fireproofing provided for this project meets or exceeds specified requirements in all respects.
- G. Test Reports: Published fire resistive designs for structural elements of the types required for the project, indicating hourly ratings of each assembly.
  - 1. Bond Strength of Fireproofing: ASTM E72, tested to provide minimum bond strength of 20 times weight of fireproofing materials;
  - 2. Compliance with UL Test Standard 263. UL Fire Resistance Test Assembly.
- H. Field Quality Control Submittals: Submit field test report.
- I. Manufacturer's Qualification Statement.
- J. Installer's Qualification Statement.
- K. Evaluation Reports: For fireproofing, from ICC-ES and UL, listing application thickness values.
- L. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

### **1.06 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company that specializes in manufacturing the type of products specified, with minimum of ten years of documented experience.
- B. Installer Qualifications: Approved, certified, or supervised by manufacturer of intumescent fireproofing, with not less than 5 years of documented experience and written approval of the manufacturer.

**1.07 MOCK-UP**

- A. Provide a mock-up for evaluation of surface preparation techniques and application workmanship; approved mock-up will serve as a standard of comparison for subsequent work of this section.
- B. Finish at least 100 sq ft of surface in areas as designated by Architect.
- C. Evaluate mock-up for compliance with specified requirements, including thickness and finish texture.
- D. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
- E. Refinish mock-up area as required to produce acceptable work.
- F. Approved mock-up may remain as part of the project.

**1.08 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials in manufacturer's original, unopened containers with identification labels and testing agency markings intact and legible.
- B. Store products in manufacturer's unopened packaging until ready for installation.
  - 1. Store at temperatures not less than manufacturer's recommended minimum temperature in dry, protected area.
  - 2. Protect from freezing, and do not store in direct sunlight.
  - 3. Dispose of all materials that have come into contact with contaminants of any kind prior to application.
- C. Dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

**1.09 FIELD CONDITIONS**

- A. Coordinate installation with adjacent construction for optimal sequencing of work.
- B. Protect areas of application from windblown dust and rain.
- C. Allow wet surfaces to dry thoroughly and to attain temperature and conditions specified before starting or continuing coating operation.
- D. Maintain ambient field conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under ambient conditions outside manufacturer's absolute limits.
  - 1. Provide temporary enclosures as required to control ambient conditions.
  - 2. Do not apply intumescent fireproofing when ambient temperatures are below 50 degrees F without specific approval from manufacturer.
  - 3. Maintain relative humidity between 40 and 60 percent in areas of application.
    - a. Do not apply intumescent paints in snow, rain, fog, or mist; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.
  - 4. Maintain ventilation in enclosed spaces during application and for not less than 72 hours afterward.
  - 5. Do not install products until environmental conditions are as recommended by manufacturer. Maintain installed work in these conditions until completion of construction.
  - 6. Protect installed work from moisture, humidity and inclement weather. Repair all damage or failure of material prior to covering with other work.

- E. Ventilation: Ventilate building spaces during and after application of fireproofing, providing complete air exchanges according to manufacturer's written instructions. Use natural means or, if they are inadequate, forced-air circulation until fireproofing dries thoroughly.

#### **1.10 WARRANTY**

- A. See Section 01 7000 - Project Closeout, for additional warranty requirements.
- B. Five year warranty, stipulating that fireproofing will not crack, check, dust, flake, spall, separate, or blister and stipulating that the manufacturer will re-install or repair failures during the warranty period.

### **PART 2 PRODUCTS**

#### **2.01 PERFORMANCE REQUIREMENTS**

- A. VOC Limits for adhesives, sealants, fillers, primers and coatings . Comply with limits specified in related section.
- B. Provide fire rated assembly ratings required for structural steel members and all connections in accordance with UL Fire Resistance Tests, classified in accordance with UL 263 (ASTM E119 and NFPA 251) for fire ratings indicated.
- C. Meet requirements of ASTM E605, ASTM E736 and ASTM E761.
- D. Assemblies: Provide fireproofing, including auxiliary materials, according to requirements of each fire-resistance design and manufacturer's written instructions.
- E. Application thicknesses must be based on published UL Report tabulated values for standard member sizes shown on the drawings. Calculated, extrapolated or interpolated application thicknesses will be rejected.
- F. Auxiliary Materials: Provide auxiliary materials that are compatible with fireproofing and substrates and are approved by UL or another testing and inspecting agency acceptable to authorities having jurisdiction for use in fire-resistance designs indicated.

#### **2.02 MANUFACTURERS**

- A. Source Limitations: Obtain fireproofing from single source.
- B. Asbestos: Provide products containing no detectable asbestos.
- C. Intumescent Mastic Fireproofing:
  - 1. Albi Manufacturing Division of StanChem Inc; Albi Clad TF: [www.albi.com/#sle](http://www.albi.com/#sle).
  - 2. Carboline Company; A/D Firefilm III: [www.carboline.com/#sle](http://www.carboline.com/#sle).
  - 3. Isolatek International Corp; CAFCO® SprayFilm® WB 5™: [www.isolatek.com/#sle](http://www.isolatek.com/#sle).
  - 4. Substitutions: See Section 01 6000 - Product Requirements.

#### **2.03 SYSTEM REQUIREMENTS**

- A. Fireproofing: Provide intumescent thin-film fire resistive coating systems tested by an independent testing agency in accordance with ASTM E119 and acceptable to authorities having jurisdiction (AHJ).
  - 1. Provide assemblies listed by UL or FM and bearing listing agency label or mark.

#### **2.04 MATERIALS**

- A. Material Compatibility:

1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  2. For each material or coat, products and spreading rates shall be as recommended in writing by intumescent paint manufacturer for use on substrate indicated. Comply with requirements for fire-retardant coating classification and surface-burning characteristics indicated.
- B. Physical and Performance Properties:
1. Bond Strength: 280 psi (1931 k Pa) per ASTM D 4541.
  2. Density: 12.0 lb/gal  $\pm$  0.5.
  3. Durometer Hardness: 84 per ASTM D 2240, Shore D.
  4. Impact Resistance: 56 inch-lb (0.65 kg-m) per ASTM D 2794.
  5. Abrasion Resistance: 0.2850 g/ 1000 cycles per ASTM D 4060.
  6. Surface Burning Characteristics: ASTM E 84, Class A.
    - a. Flame Spread: 5.
    - b. Smoke Developed: 35.
  7. VOC Content: < 12 g/L.
- C. Fire Resistive Coating System: Thin film intumescent mastic fireproofing system for fire protection of structural steel, gypsum board, wood, concrete, and concrete masonry units (CMU).
1. Surface Burning Characteristics: Tested in accordance with ASTM E84.
    - a. Flame Spread Index (FSI): 25, maximum.
    - b. Smoke Developed Index (SDI): 50, maximum.
  2. Thickness: As required for fire-resistance design indicated, measured according to requirements of fire-resistance design.
  3. For Interior Use:
    - a. Use only water-based products.
    - b. Durometer Hardness, Type D: 65, minimum, in accordance with ASTM D2240.
    - c. Substitutions: See Section 01 6000 - Product Requirements.
  4. For Exterior Use:
    - a. Use only solvent-based products.
    - b. Durometer Hardness, Type D: 45, minimum, in accordance with ASTM D2240.
- D. Protective and Decorative Top Coating: As recommended by fireproofing manufacturer for exposure and substrate conditions.
1. Color and Gloss: As selected..
  2. Coordinate with paint as specified in Division 09 for color and sheen to match between intumescent fireproof coating and adjacent painted surfaces.
- E. Sealers and Primer: As required by tested and listed assemblies, and recommended by fireproofing manufacturer to suit specific substrate conditions.
- F. Reinforcement: Glass fiber fabric matching type used in tested and listed assemblies.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Examine substrates with Applicator present to determine if they are in satisfactory condition to receive intumescent fireproofing. Verify that they are clean and free of oil, grease, incompatible primers, or other foreign substances capable of impairing bond to fireproofing system.
- B. Do not begin installation until substrates have been properly prepared.

- C. Verify suitability of substrates, including surface conditions, and compatibility with existing finishes and primers.
- D. Verify that clips, hangers, supports, sleeves, and other items required to penetrate fireproofing, are in place.
- E. Verify ducts, piping, equipment, or other items which would interfere with application of fireproofing are not positioned until fireproofing work is complete.
- F. If substrate preparation is responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### **3.02 PREPARATION**

- A. Thoroughly clean surfaces to receive fireproofing.
  - 1. Remove substances that could impair bond of fireproofing.
- B. Prime substrates where included in fire-resistance design and where recommended in writing by fireproofing manufacturer unless compatible shop primer has been applied and is in satisfactory condition to receive fireproofing.
- C. Do not coat surfaces if surface moisture content or alkalinity exceeds that permitted in manufacturer's written instructions.
  - 1. Remove incompatible primers, and reprime substrate with compatible primers as required to produce coating systems indicated.
  - 2. Perform cleaning and coating application so dust and other contaminants from cleaning process do not fall on wet, newly coated surfaces.
- D. Repair substrates to remove surface imperfections that could affect uniformity of texture and thickness of fireproofing system. Remove minor projections and fill voids that could telegraph through the finished work or reduce effectiveness of fireproofing.
  - 1. For applications visible on completion of Project, repair substrates to remove surface imperfections, minor projections and fill voids that might affect finish appearance after application.
- E. Cover or otherwise protect other work that might be damaged by fallout or overspray of fireproofing system, and provide temporary enclosures as necessary to confine operations and maintain required ambient field conditions.
- F. Close off and seal duct work in areas where fireproofing is being applied.

### **3.03 APPLICATION**

- A. Construct fireproofing assemblies that are identical to fire-resistance design indicated and products as specified, tested, and substantiated by test reports; for thickness, primers, topcoats, finishing, and other materials and procedures affecting fireproofing work.
- B. Coordinate application of fireproofing with other construction to minimize need to cut or remove fireproofing.
- C. Comply with manufacturer's instructions for particular conditions of installation applications.
- D. Apply manufacturer's recommended primer to required coating thickness.
- E. Apply fireproofing to full thickness over entire area of each substrate to be protected.
- F. Install auxiliary materials as required, as detailed, and according to fire-resistance design and fireproofing manufacturer's written instructions for conditions of exposure and intended use.



For auxiliary materials, use attachment and anchorage devices of type recommended in writing by fireproofing manufacturer.

- G. Apply fireproofing to full thickness over entire area of each substrate to be protected. Apply coats at manufacturer's recommended rate to achieve dry film thickness required for fire resistance ratings designated for each condition.
- H. Apply intumescent fireproofing by spraying to maximum extent possible, and as necessary complete coverage by roller application or other method acceptable to manufacturer.
- I. Extend fireproofing in full thickness over entire area of each substrate to be protected.
- J. Install body of fireproofing in a single course unless otherwise recommended in writing by fireproofing manufacturer.
- K. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Produce sharp lines and color breaks.
  - 1. Pigmented Finishes: If undercoats or other conditions show through pigmented topcoat/overcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- L. Cure fireproofing according to fireproofing manufacturer's written instructions.
- M. Do not install enclosing or concealing construction until after fireproofing has been applied, inspected, and tested and corrections have been made to deficient applications.

#### **3.04 FIELD QUALITY CONTROL**

- A. Testing Laboratory: Owner will employ and pay for field quality control testing of intumescent fireproofing by an independent testing laboratory.
- B. Perform the tests and inspections of completed Work in successive stages. Do not proceed with application of fireproofing for the next area until test results for previously completed applications of fireproofing show compliance with requirements. Tested values must equal or exceed values as specified and as indicated and required for approved fire-resistance design.
- C. See Section 01 4000 "Quality Requirements" for retesting and reinspecting requirements and Section 01 7300 "Execution" for requirements for correcting the Work.
- D. Fireproofing will be considered defective if it does not pass tests and inspections.
  - 1. Remove and replace fireproofing that does not pass tests and inspections, and retest.
  - 2. Apply additional fireproofing, per manufacturer's written instructions, where test results indicate insufficient thickness, and retest.
- E. Manufacturer's Field Reports: Indicate environmental conditions under which fireproofing materials were installed. These reports are separate and complementary to reports provided by the Owner's Testing Agency.
- F. Contractor shall inspect the installed fireproofing after application and curing but prior to concealment or coating for integrity of fire protection.
- G. Contractor shall re-inspect the installed fireproofing for integrity of fire protection, after installation of subsequent work.
- H. Repair or replace intumescent mastic fireproofing at locations where test results indicate fireproofing does not meet specified requirements.

### **3.05 CLEANING**

- A. Immediately after installation of fireproofing in each area, remove overspray and fallout from other surfaces and clean soiled areas.
- B. Protect work of other trades against damage from coating application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

### **3.06 PROTECTION**

- A. Immediately after installation of fireproofing in each area, remove overspray and fallout from other surfaces and clean soiled areas.
- B. Protect installed intumescent mastic fireproofing from damage due to subsequent construction activities, so fireproofing is without damage or deterioration before Date of Substantial Completion.
- C. Touch-up, repair or replace damaged products using same method as original installation before Date of Substantial Completion.

### **3.07 SCHEDULES**

- A. Steel members of building Structural Frame, exposed or concealed in fire-rated walls, floor/ceiling and roof/ceiling assemblies, all horizontal, vertical and diagonal members, unless otherwise specifically detailed to have fireproofing provided by other sections:
  - 1. Fire Resistance Rating to match Wall or Assembly Construction indicated.

**END OF SECTION**