MILFORD SCHOOL DISTRICT
SAU 40
100 West Street
Milford, NH 03055
603-673-2202
Fax 603-673-2237

Michael Tenters
Director of Curriculum & Instruction

Robert Marquis
Superintendent of Schools

Jennifer Burk
Business Administrator

Dear Potential Bidder:

Enclosed is an Invitation to Bid on the replacement of the Exterior Doors and all associated components at Milford Middle School in the Milford School District. When submitted, bids must be complete and include the following documents: Good Faith Statement, Experience/Performance Statement, Cost Statement, and evidence of insurability and bonding capability, if applicable.

A mandatory pre-bid meeting has been scheduled for **March 2, 2018, at 9:30 am** at the site: Milford Middle School, 33 Osgood Road, Milford, NH 03055. **Bids will be opened on March 14, 2018 at 11:00 am.**

You may start the project no later than June 18, 2018 **and a firm completion date will be mutually agreed upon between the Milford School District and the successful Bidder.**

Sincerely,

Robert Marquis
Superintendent of Schools

Enclosures:
Good Faith Statement
Statement of Experience and Ability to Perform
Cost Statement
Invitation to Bid
Technical Specifications/Scope of Work
Milford Middle School Map

REPLACEMENT DOORS MILFORD MIDDLE SCHOOL
MILFORD SCHOOL DISTRICT
BID

GOOD FAITH STATEMENT

To Whom It May Concern:

The undersigned represents that this proposal is made in good faith, without fraud, collusion or connection of any kind with any other bidder for the same work; that he has informed himself fully in regard to the Specifications for the at Milford Middle School for the Milford School District of Milford, New Hampshire, and has made his own examinations and estimates and from them makes this proposal.

The undersigned understand that the Milford School District reserves the right to waive any formalities in, to reject any and all bids or any part thereof, and/or accept any bid or part thereof, or to select a bidder whose bid is not the lowest, which it considers to be for the best interest of the Milford School District.

With the above understanding, the undersigned proposes to replace all exterior doors and all components associated with said door systems including but not limited to hinges, locks, door closers, door pulls, etc. at Milford Middle School for the Milford School District and to comply in all respects with said specifications for the sum or sums stated.

COMPANY: _____

ADDRESS:_____

NAME (typed or printed):_____

SIGNATURE:_____

TITLE:_____

DATE:_____

REPLACEMENT DOORS MILFORD MIDDLE SCHOOL
MILFORD SCHOOL DISTRICT
BID

STATEMENT OF BUSINESS EXPERIENCE AND ABILITY TO PERFORM

1. How long have you been in business? _____ Years

2. How many Door projects have you completed? _____

3. Please attach a list of the schools and work you have completed or at which you are currently engaged, including the name of the facility and project, the approximate square footage of the project, and the year the construction was complete.

4. Other
   a. The Bidder shall provide copies of the company's employee safety training program, personnel policies (including criminal background check policy), and work rules.
   b. The Bidder shall provide four (4) current references, including email addresses and phone numbers, two (2) of which should be school districts in New Hampshire.
   c. The Bidder shall disclose any active or pending litigation against the Bidder.
   d. The Bidder shall provide a copy of the Certificate of Authority from the New Hampshire Department of State indicating the Bidder may transact business in the State of NH.
   e. For bids in excess of $100,000, The Bidder shall submit certifications of employee 10-hour OSHA safety training.
   f. The Bidder shall submit EPA lead paint certifications for company (ies) and employees.

BIDDER: _____

ADDRESS: _____

NAME: _____

_____

Signature Title Date

REPLACEMENT DOORS MILFORD MIDDLE SCHOOL
MILFORD SCHOOL DISTRICT
BID

COST STATEMENT

Base Proposal of Piping replacement as Described in Specifications:
(List items, if necessary)

Aluminum Doors and Store fronts $_____

Hollow Metal frames and Doors $_____

Option 3 $_____

TOTAL (all-inclusive, not-to-exceed price) $_____

BIDDER: _____

ADDRESS: _____

NAME: _____

_____
Signature Title Date

INVITATION TO BID

SECTION I

General Requirements

The Milford School District, by its School Board (hereinafter called the "School District"), invites bids from responsible parties to provide Bid Form. The School District reserves the right to reject any or all bids as it deems to be in the best interests of the School District.

GENERAL CONDITIONS:

1. A pre-bid meeting has been scheduled for **March 2, 2018** at 9:30 a.m. at the site: Milford Middle School, 33 Osgood Road, Milford, NH 03055.

2. Should any prospective bidder desire clarification or interpretation of any items in the advertisement, invitation to bid, general conditions and specifications, he shall request such, via email, from the Director of Buildings and Grounds, at wcooper@milfordk12.org, and the question put and the answer given by the Director of Buildings and Grounds. All Questions and Answers will be posted to the School Districts website and emailed to all bidders.

3. All bids must be submitted on the official forms (attached hereto), sealed, labeled "**Sealed Bid: Door Replacement Project – Milford Middle School"** and delivered to the Office of the Superintendent of Schools, 100 West Street, Milford, New Hampshire 03055, by 11:30 A. M., on **March 14, 2018.**

4. Bidders will submit one (1) original bid and three (3) copies. All proposals must be on the forms provided and signed by the individual, partnership or corporation making the same; when made by a corporation, proposals must be signed by the officers thereof authorized to bind it by contract and be accompanied by a copy, under seal, of his authority to sign. Additional pages may be attached, dated, and signed by an authorized representative of the successful bidder, if additional space is required to provide a complete response.

5. No bid shall be withdrawn for a period of thirty-five (35) days from date of submission.

6. The bidders are invited to be present at the public bid opening at the Office of the Superintendent of Schools, 100 West Street, Milford, New Hampshire, at **11:00 A.M. on March 14, 2018.**

7. Awarding of the contract will be within thirty-five (35) days of the bid opening.

8. The competency, responsibility, experience, reputation, and financial standing of the bidders will be considered in making the award. The School District reserves the right to reject any or all bids, wholly or in part, to waive any informality therein, to accept any bid even though it may not be the lowest bid, and to make award which in its sole and absolute judgment will best serve the School District's interests. Bidders shall bid specifications and any exceptions must be noted.

9. All Bidders will be certified by the Secretary of State of the State of New Hampshire to transact business in the State of New Hampshire. Each Bidder shall provide a copy of the Certificate of Authority from the New Hampshire Department of State indicating the Bidder may transact business in the State of NH.

10. All bidders shall submit, with their bids, evidence from insurance and/or Surety Company (ies) licensed to do business in the State of New Hampshire, which it shall provide the bidder with insurance coverage, a performance bond, and a payment bond in the amount required herein if the bidder is successful.

11. A **Performance** and **Payment Bond** in the total estimated amount of the annual contract shall be furnished before a contract is signed. The successful bidder shall procure and maintain in force a performance and payment bond from an insurance or surety company licensed to do business in the State of New Hampshire for the benefit of the School District conditioned upon the faithful performance of the terms of the contract, in an amount equal to one hundred percent (100%) of the contract. The cost to maintain the performance and payment bonds is to be included in the bid price

The successful bidder will be required to indemnify the School District for any loss that they may sustain from any cause arising out of the performance or lack of performance of the agreement by the successful bidder.

12. **Automobile and general liability insurance** shall be carried by the successful bidder during the life of the Agreement in the amount of five million dollars ($5,000,000) per occurrence. The insurance may be arranged under a single policy or by a combination of an underlying policy with the balance provided by an Excess or Umbrella policy.

    Such policy will name the School District as a co-insured and a certificate of such insurance must be received by the Business Administrator upon execution of the contract and prior to the start of any work on the project. The successful bidder will immediately notify the School District if the successful bidder receives any notice from the insurance company or companies providing such insurance coverage that such company or companies intends to cancel any part of such insurance; such notice shall be in addition to any obligation of the insurance company or companies to notify the School District as an additional insured.

    The successful bidder shall agree to hold harmless the School District and any of the School District's officials, elected or otherwise, and its employees from claims for damages, including legal expenses, for property damage and/or personal injuries, and/or bodily injuries, including death, which may arise from or out of the operation hereunder.

    The successful bidder shall maintain **Workers' Compensation Insurance** for all employees engaged in the project. The successful bidder will immediately notify the School District if the successful bidder receives any notice from the insurance company or companies providing such insurance coverage that such company or companies intends to cancel any part of such insurance; such notice shall be in addition to any obligation of the insurance company or companies to notify the School District as an additional insured.

    For bids in excess of one hundred thousand dollars ($100,000), or where hazardous materials are involved, the successful bidder shall, prior to the performance of any work under the contract, provide the School district with certification of the successful completion of a 10-hour Occupational Safety and Health Administration (OSHA) construction safety program for each on-site employee, including those of any subcontractor, as required by NH RSA 277:5-a.

    The successful bidder shall procure and maintain in force **Builder's Risk insurance** in an amount equal to 100% of the project construction costs. A certificate of such insurance must be received by the Business

Administrator upon execution of the contract and prior to the start of any work on the project. The successful bidder will immediately notify the School District if the successful bidder receives any notice from the insurance company providing such insurance coverage that such company intends to cancel any part of such insurance.

13. For proposals containing work that may disturb any painted surface, the successful bidder will provide a copy of the bidder's (and any subcontractor's) EPA-required certification to conduct lead-based paint activities or renovations, and copies of employees' individual certifications for same.

14. The successful bidder will provide a project schedule to the School District prior to starting work on the project and at least monthly updates thereafter.

15. The contract for this project is attached. The successful bidder shall be prepared to sign the contract within one day of the award of the contract by the Milford School Board, which date is anticipated to be **March 19, 2018**.

16. The School District shall pay the successful bidder for contract expenses on a monthly basis.

17. In addition to any other rights the School District may have, the School District shall have the right to declare the successful bidder in default if (a) the successful bidder becomes insolvent; (b) a voluntary or involuntary petition in bankruptcy is filed by or against the successful bidder.

18. The contract may be terminated by the School District for unsatisfactory performance of the contract. In instances of unsatisfactory performance, the School District shall give written notice to the successful bidder citing the unsatisfactory performance and giving the successful bidder fourteen (14) days to improve its performance to the satisfaction of the School District. If the performance of the successful bidder does not improve to the satisfaction of the School District, within the fourteen (14) day period, the School District may terminate the contract by providing written notice to the successful bidder, notifying it of final termination fourteen (14) days from the date of receipt of said notice.

19. Should termination of the contract occur, the School District may employ another contractor or contractors to complete the project, and, in the case of termination for unsatisfactory performance, hold the successful bidder herein responsible for any extra or added expense, loans, or damages suffered by the School District.

20. The successful bidder will appoint a qualified supervisor. Said person will be available to the School District's representative at all times. Said person will be responsible for enforcing with employees and contractors connected with the project the State of New Hampshire law prohibiting smoking on school property. Said person will be responsible for requiring employees and contractors connected with the project to be properly attired in shirts, long pants, and appropriate footwear (no bare torsos or shorts). Said person will be responsible for enforcing courteous conduct on the site with employees and contractors connected with the project (no swearing or vulgar language).

21. A firm completion date that is mutually agreed upon between the School District and the Contractor will be set.

22. The successful bidder will invoice the School District monthly, terms net 45, interest rate of 0% for late payment. Invoice payment shall be subject to the receipt of lien waivers and no payment shall become due absent applicable waivers. **The School District will hold 5% retainage on the total cost of the project for one year or until such time as as-built plans and maintenance and warranty documents have been delivered, whichever is later.**

23. **The following information is provided with the best information available. Any omissions or deficiencies should be brought to the attention of the School District. Clarifications and amendments will be shared with all known bidders.**

SECTION II
Project Summary

This project shall be "Turn-Key" in nature with firm completion date that is mutually agreed upon by the school district and the successful bidder.

The School District has experienced many failures with the exterior door systems at the Middle School. Many of the doors have been repaired and still do not operate properly. The doors were installed in 1992 and have lived past their useful life. They do not close properly, have rotted through and the glass has been compromised by the elements. The School District has decided to replace all of the exterior doors in the building. All door systems and storefront conditions shall be verified in the field. If the contractor needs to come back after school hours to complete a thorough inspection of the door systems, they will need to coordinate with the Director of Buildings and Grounds for access to the building.

SECTION III

Bid Specifications

1) General Conditions:

The successful bidder shall have visited the site of the proposed work in order to fully acquaint and familiarize himself with conditions as they exist and the character of the operations to be carried out under the scope of this contract and make such on-site and subsurface investigations as he may see fit so that he understands fully the site, facilities, difficulties and any restrictions attending the execution of this work. The failure or omission of the successful bidder to receive or examine any form, instrument, and document or to visit the site and acquaint their company with the conditions there existing, shall in no way relieve him from any obligations with respect to the performance of the proposed contract and the work therein.
The successful bidder shall adhere to all applicable federal, state, and local codes, rules, and regulations, latest codes in effect.

The successful bidder shall provide any and all dumpsters, storage containers, and any equipment to be utilized by the Contractor and any of their sub-contractors for the duration of this project.

The successful bidder shall obtain any and all permits, licenses, and permissions required for the project at the successful bidder's expense.

The School District is in possession of and using the premises. Contractors shall schedule their work and material deliveries to cause as little interference as possible with the School District's normal use of the building. Should any site work be conducted while school is in session, the fullest consideration will be given to students and staff safety after consultation with School District Officials.

Testing may be required by the School District to determine that materials or workmanship provided meet the specified requirements. The employment of a testing laboratory shall in no way relieve the successful bidder of his obligation to perform all work in accordance with contract requirements. The testing laboratory shall procure all samples and specimens, shall provide all necessary testing equipment and personnel and make all deliveries of samples to the laboratory.

The School District shall be responsible for oversight of and payment for initial testing as indicated in the specifications. If retests are required because of failure, the successful bidder shall be responsible for the costs of retesting.

Technical Specifications/Scope of Work:

SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
PART 1 - GENERAL

1.1 Related Documents

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 Summary

A. This Section includes Aluminum Entrances, glass and glazing, and door hardware and components.

1. Types of Aluminum Entrances include:

A. Swing Door; Medium stile, 3-1/2" (89 mm) vertical face dimension, 1-3/4" (44.5 mm) depth, high traffic applications.

B. Swing Door; Wide stile, 5" (127 mm) vertical face dimension, 1-3/4" (44.5 mm) depth, high traffic applications.

C. Related Sections:

1. 072700 "Air Barriers"
2. 079200 "Joint Sealants"
3. 083213 "Sliding Aluminum-Framed Glass Doors"
4. 084313 "Aluminum-Framed Storefronts"
5. 085113 "Aluminum Windows"
6. 087000 "Hardware"
7. 088000 "Glazing"
8. 280000 "Electronic Safety and Security"

1.3 Definitions

A. Definitions: For fenestration industry standard terminology and definitions refer to American Architectural Manufactures Association (AAMA) – AAMA Glossary (AAMA AG).

1.4 Performance Requirements

A. General Performance: Aluminum-framed entrance system shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.

B. Aluminum Framed Entrance Performance Requirements:

1. Wind loads: Provide entrance system; include anchorage, capable of withstanding wind load design pressures of (____) lbs./sq. ft. inward and (____) lbs./sq. ft. outward. The design pressures are based on the (____) Building Code; (____) Edition.

2. Air Infiltration: For single acting offset pivot or butt hung entrances in the closed and locked position, the test specimen shall be tested in accordance with ASTM E 283 at a pressure differential of 1.57 psf (75 PA) for single and pairs of doors. A single 3'0" x 7'0" (915 mm x 2134 mm) entrance door and frame shall not exceed 1.0 cfm/ft2. A pair of 6'0" x 7'0" (1830 mm x 2134 mm) entrance doors and frame shall not exceed 1.0 cfm/ft2.

3. Structural Performance: Corner strength shall be tested per the Kawneer dual moment load test procedure and certified by an independent testing laboratory to ensure weld compliance and corner integrity [Testing procedure and certified test results available upon request].

1.5 Submittals

A. Product Data: Include construction details, material descriptions, and fabrication methods, dimensions of individual components and profiles, hardware, finishes, and installation instructions for each type of aluminum-framed entrance door indicated.

B. Shop Drawings: Include plans, elevations, sections, details, hardware, and attachments to other work, operational clearances and installation details.

C. Samples for Initial Selection: For units with factory-applied color finishes including samples of hardware and accessories involving color selection.

D. Samples for Verification: For aluminum-framed entrance door and components required.

E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for each type of aluminum-framed entrance doors.

F. Fabrication Sample: Corner sample consisting of a door stile and rail, of full-size components and showing details of the following:

1. Joinery, including welds.
2. Glazing.

G. Other Action Submittals:

1. Entrance Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of entrance door hardware, as well as procedures and diagrams. Coordinate final entrance door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of entrance door hardware.

1.6 Quality Assurance

A. Installer Qualifications: An installer which has had successful experience with installation of the same or similar units required for the project and other projects of similar size and scope.

B. Manufacturer Qualifications: A manufacturer capable of fabricating aluminum-framed entrance doors and storefronts that meet or exceed performance requirements indicated and of documenting this performance by inclusion of test reports, and calculations.

C. Source Limitations: Obtain aluminum-framed entrance door through one source from a single manufacturer.

D. Product Options: Drawings indicate size, profiles, and dimensional requirements of aluminum-framed entrance doors and are based on the specific system indicated. Refer to Division 01 Section “Product Requirements”. Do not modify size and dimensional requirements.

1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

E. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Build mockup for type(s) of swing entrance door(s) indicated, in location(s) shown on Drawings.

F. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section “Project Management and Coordination”.

1.7 Project Conditions

A. Field Measurements: Verify actual dimensions of aluminum-framed entrance door openings by field measurements before fabrication and indicate field measurements on Shop Drawings.

1.8 Warranty

A. Manufacturer’s Warranty: Submit, for Owner’s acceptance, manufacturer’s standard warranty.

1. Warranty Period: Two (2) years from Date of Substantial Completion of the project provided however that the Limited Warranty shall begin in no event later than six months from date of shipment by manufacturer.

PART 2 - PRODUCTS

2.1 Manufacturers

A. Basis-of-Design Product: EFCO, KAWNEER or APPROVED EQUAL.

1. The door stile and rail face dimensions of the 5005" (127 mm)5" (127 mm)6-1/2" (166 mm)10" (254 mm) DoorVertical StileTop RailBottom RailOptional Bottom Rail

2. Major portions of the door members to be 0.125" (3.2) nominal in thickness and glazing molding to be 0.05" (1.3) thick.

3. Glazing gaskets shall be either EPDM elastomeric extrusions or a thermoplastic elastomer.

4. Provide adjustable glass jacks to help center the glass in the door opening.

2.2 Materials

A. Aluminum Extrusions: Alloy and temper recommended by aluminum-framed entrance door manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.090” (2.3 mm) wall thickness at any location for the main frame and door leaf members.

B. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum-framed entrance door members, trim hardware, anchors, and other components.

C. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated.

D. Reinforcing Members: Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated.

1. Weather Seals: Provide weather stripping with integral barrier fin or fins of semi-rigid, polypropylene sheet or polypropylene-coated material. Comply with AAMA 701/702.

2.3 Storefront Framing System

A.Storefront Entrance Framing:

1. Trifab™ VG 450/451/451T, Trifab™ 451UT or approved equal.

2. Trifab™ 601/601T/601UT or approved equal.

3. Thermally Broken entrance Framing - Kawneer IsoLock™ Thermal Break with a 1/4" (6.4 mm) or approved equal, separation consisting of a two-part chemically curing, high-density polyurethane, which is mechanically and adhesively joined to aluminum storefront sections.

a. Thermal Break shall be designed in accordance with AAMA TIR-A8 and tested in accordance with AAMA 505.
B. Non-Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.
C. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials. Where exposed shall be stainless steel.
D. Perimeter Anchors: When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.
E. Packing, Shipping, Handling and Unloading: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
F. Storage and Protection: Store materials protected from exposure to harmful weather conditions. Handle storefront material and components to avoid damage. Protect storefront material against damage from elements, construction activities, and other hazards before, during and after storefront installation.

2.4 Glazing

A. Glazing: All exterior glass shall be double paned, insulated, low-e glass. All glazing shall be in compliance with the State Glazing Law.
B. Glazing Gaskets: Manufacturer's standard compression types; replaceable, extruded EPDM rubber.
C. Spacers and Setting Blocks: Manufacturer's standard elastomeric type.

2.5 Hardware

A. General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, or other corrosion-resistant material compatible with aluminum; designed to smoothly operate, tightly close, and securely lock aluminum-framed entrance doors.
B. Standard Hardware:
1. Weather-stripping:
a. Meeting stiles on pairs of doors shall be equipped with an adjustable astragal utilizing wool pile with polymeric fin.
b. The door weathering on a single acting offset pivot or butt hung door and frame (single or pairs) shall be comprised of a thermoplastic elastomer weathering on a tubular shape with a semi-rigid polymeric backing.
2. Sill Sweep Strips: EPDM blade gasket sweep strip in an aluminum extrusion applied to the interior exposed surface of the bottom rail with concealed fasteners (Necessary to meet specified performance tests).
3. Threshold: Extruded aluminum, one piece per door opening, with ribbed surface.
4. Center Pivots
5. Offset Pivots (Offset Pivot available for access control)
6. Butt Hinge: Standard is Stainless Steel w/ Powder Coating & Non Removable Pin (NRP) (EL Hinge available for access control)
7. Continuous Hinge: Compatible with doors in a dark bronze finish. (Preferred hinge)
8. Push/Pull: Pull handle on exterior side of door. (No D Rings)
9. Exit Device: Concealed rod exit device, Rim exit device or approved equal for interior side of doors.
10. Closer: LCN4040 XP, LCN1260 series, Norton 8101 or approved equal.
11. Latch Handle:
12. Cylinder(s): Owner would like to re-use existing equipment.
13. Electric Strike/Strike Keeper: Owner would like to re-use existing equipment.
14. Contractor is responsible for security until substantial completion.
15. Include hardware in the base bid, not an allowance.
16. Integral weather stripping which shall be secured to prevent slipping.
17. Commercial grade weather stripping, not vinyl, residential grade.
18. All hardware must be ADA compliant

C. Optional Hardware

D. Access Control Entrance Hardware:

1. Existing Access Control hardware will be re-used on new door systems.

2.6 Fabrication

A. Fabricate aluminum-framed entrance doors in sizes indicated. Include a complete system for assembling components and anchoring doors.

B. Fabricate aluminum-framed glass doors that are reglazable without dismantling perimeter framing.

1. Door corner construction shall consist of mechanical clip fastening, SIGMA deep penetration plug welds and 1-1/8" (29 mm) long fillet welds inside and outside of all four corners. Glazing stops shall be hook-in type with EPDM glazing gaskets reinforced with non-stretchable cord.
2. Accurately fit and secure joints and corners. Make joints hairline in appearance.
3. Prepare components with internal reinforcement for door hardware.
4. Arrange fasteners and attachments to conceal from view.

C. Weather-stripping: Provide weather-stripping locked into extruded grooves in door panels or frames as indicated on manufacturer's drawings and details.

2.7 Aluminum Finishes

A. Finish shall be 313-R1 Dark Bronze: Arch. Class 1 Anodized Coating, AA-MI2C22A44.

PART 3 - EXECUTION

3.1 Examination

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated installation.

1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
2. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches (76.2 mm) of opening.
3. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 Installation

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing aluminum-framed entrance doors, hardware, accessories, and other components.

B. Install aluminum-framed entrance doors level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.

C. Set sill threshold in bed of sealant, as indicated, for weather tight construction.

D. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

3.3 Field Quality Control

A. Manufacturer's Field Services: Upon Owner’s written request, provide periodic site visit by manufacturer’s field service representative.

3.4 Adjusting, Cleaning, and Protection

A. Clean aluminum surfaces immediately after installing aluminum-framed entrance doors. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Clean glass immediately after installation. Comply with glass manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.

C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents:

1. Drawings and general provisions of the Subcontract apply to this Section.
2. Review these documents for coordination with additional requirements and information that apply to work under this Section.

B. Section Includes:

1. Steel doors and frames.
2. Glazed light frames.
3. Preparation for door hardware.

1.2 REFERENCES

A. General:

1. The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
2. Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
3. Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.

B. ASTM International:

1. ASTM A653Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
2. ASTM C1363 Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus.
3. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

C. California Building Code (CBC) Standard 7-2: Fire Tests of Door Assemblies

D. CBC Standard 7-4: Fire Test of Window Assemblies.

E. HMMA 850: Fire Rated Hollow Metal Doors and Frames.

F. HMMA 861: Guide Specifications for Commercial Hollow Metal Doors and Frames.

G. National Association of Architectural Metal Manufacturers (NAAMM) Standard Hollow Metal Manufacturers' Association (HMMA) 840: Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames.

H. National Fire Protection Association (NFPA) 80: Fire Doors and Windows.

I. NFPA Standard 252: Fire Tests for Door Assemblies.

J. NFPA 257-1990: Standard Fire Test for Window and Glass Block Assemblies.

K. Underwriters Laboratories (UL) Standard 10B: Fire Tests of Door Assemblies.

L. UL Standard 10C: Positive Pressure Fire Tests of Door Assemblies.

1.3 SUBMITTALS

A. Submit under provisions of Division 01 Section "General Requirements."

B. Product Data: Manufacturer's product literature, specifications and installation instructions.

C. Shop Drawings: Indicate door and frame elevations, dimensions, fire rating, door type, core, reinforcement, finish, hardware locations, cutout locations, frame profiles, details, metal gage, anchorage details, and finish.

D. Schedule: Schedule of doors and frames, using same reference numbers for details and openings as those on Drawings. Indicate frame and door types.

E. Samples:

1. Frame corner, 12 by 12 inches (300 by 300 mm).
2. Door, with glass and glazing stops, 12 by 12 inches (300 by 300 mm).

1.4 QUALITY ASSURANCE

A. Comply with HMMA 840 and 861.

B. Regulatory Requirements:

1. Comply with California Building Code (CBC) Chapters 7 and 10.

2. Fire Labeled Doors and Frames: Comply with the following:

a. HMMA 850, NFPA 252, CBC Standard 7-2, and UL 10B and 10C.

b. Exit Enclosure Doors: Rate of rise across door thickness after 30 minutes: Maximum 450 degrees F.

c. Installed Door and Frame Assemblies: NFPA 80.

3. Fire Labeled Window Frames: Comply with NFPA 257 and CBC 7-4.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver, store and handle steel doors and frames in a manner to prevent damage and deterioration.

B. Storage: Comply with HMMA 840 and manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Typical: Ceco Door Products, Forderer Cornice Works, Fenestra Corporation, or Steel craft Ingersoll-Rand.

B. Sound Rated Doors and Frames: Overly Manufacturing Company or IAC Industrial Acoustics Company.

2.2 MATERIALS:

A. Doors: HMMA 861 Type A, 1-3/4" thick, full flush continuously welded edge seams with no visible seams on faces or vertical edges, steel stiffened core, insulated with inorganic, noncombustible material.

1. Exterior Doors: ASTM A653 hot-dip galvanized sheet steel, 16 gage (0.0538 inches minimum) unless otherwise noted.

2. Glazing: All exterior glass shall be double paned, insulated, low-e glass. All glazing shall be in compliance with the State Glazing Law.

3. Stile And Rail Doors: 16 gage sheet steel unless noted otherwise, formed into rectangular tubes with integral formed stop, continuously welded to form a rigid tubular frame, welds ground smooth and flush.

B. Frames: HMMA 861.

1. Exterior Frames: Welded type.

2. Gage: Minimum 16 gage for openings 4 feet (1.2 m) in width or less; 14 gage for openings greater than 4 feet (1.2 m) in width

3. Door Silencers: Resilient type fitted in drilled holes, removable for replacement.

4. [Mortar Guard Boxes: Minimum 22 gage welded in place; provide where frames may be grouted.

C. Fire Rated Doors, Frames and Glazed Light Frames:

1. Labels: UL or Warnock-Hersey labels for the exposures indicated.

a. Items provided with labels other than the fire resistive rating shown on the Door Schedule are not permitted and will be rejected.

b. If any item noted to be fire rated cannot qualify for appropriate labeling, obtain instructions from the Project Manager before beginning fabrication on that item.

c. All Fire Rated Doors shall be pre-cored on the hinge side, 3/8" diameter to the lock for installation of access control device. The center hinge must match center-to-center for transfer installation at the core.

D. Glazing Stops: Full flush type with glass centered in opening, 16 gage minimum, unsecured side integral with unit, secured side square profile fastened with flush, countersunk Allen type fasteners.

2.3 FABRICATION

A. Conform to requirements of NAAMM, except as specified otherwise in this Section.

B. Hardware Preparation: Reinforce and prepare doors and frames to receive hardware either from existing doors or new hardware.

1. Minimum Gages for Hardware Reinforcing Plates: Provide in accordance with HMMA 861, except hinge and pivot reinforcements shall be 7 gage minimum.

2. Locations for Reinforcing Hardware: Comply with Division 08 Section "Hardware".

3. Electrical Hardware and Devices: Prepare doors and frames to receive electrical hardware from existing doors and frames per owner's request.
4. Factory install hardware to the greatest extent possible; remove only as required for final finishing operation and for delivery to and installation at Project site.
5. Weather Sweeps: Manufacturer's standard adjustable nylon brush sweep mounted to underside of door bottom.
C. HINGES
1. Heavy weight 4.5" X 4.5" ball bearing hinges on all doors,
2. Continuous Hinge (Owner Preferred)
2. Hinge to require no maintenance or lubrication
3. Hinge guaranteed for life of building
D. EXIT DEVICES AND CYLINDERS
2. Surface mounted, single point latching rim cylinder panic devices of the flat bar design
3. Cylinder dogging on exit devices
4. Night latch function on exterior doors.
F. ELECTRONIC ACCESS
G. KEYING AND CYLINDERS
Owner shall provide final cores
H. MISCELLANEOUS HARDWARE
1. Door operators: Ensure operator and access systems do not interfere with each other's intended operation.
2. Closers
a. Field adjustable varying spring power non handed closers with separate checking valves for:
1) Back check
2) Speed
3) Latching adjustment
b. Minimum 10 year warranty
c. Heavy duty arms at high frequency / high abuse doors
3. Where fire rated doors are held open by electromagnet and release when in alarm, specify
Blocking/backing for wall-mounted electromagnetic holders.
6. Smoke seals / weather strip / sweeps
a. Provide full weather strip and sweep at all exterior locations
C. Frames:
1. Welded Frames: Accurately form and cut mitered corners of welded type frames. Weld on inside surfaces. Grind welded joints to smooth uniform finish.
2. Knocked Down Frames: Accurately form and miter interlocking joints of knocked down frames to maintain hairline alignment of parts when field assembled.
3. Head Reinforcement: Reinforce frames wider than 4'-0" with two 12 gage minimum formed steel channels welded in place, flush with top of frames.
4. Door Silencers:
a. Prepare frames for silencers.
b. Provide 3 silencers on strike jamb of single door frames and 3 silencers each strike jamb of double door frames with removable mullions.
c. Provide 2 silencers on head of double door frames without removable mullions. Omit silencers at gaskets.
5. Jamb Anchors: Provide per HMMA. Weld floor jamb anchors in place.
D. Fire Rated Labels: Place where visible when doors and frames are in open, installed position.
E. Finish:
1. Interior Units: Chemically treat surfaces and apply one coat of primer.

2. Exterior Units: Hot-dipped galvanized in compliance with ASTM A623. Phosphatize or surface treat after galvanizing, and apply one coat of primer.
3. Primer: Rust-inhibitive, baked, smooth finish.

PART 3 - EXECUTION

3.1 COORDINATION

A. Coordinate door and frame [and glazed light frames] fabrication and installation with Division 08 Section
B. Coordinate door and frame fabrication with security/card access to receive electrical hardware from existing doors and frames per owner's request.
C. Coordinate setting of steel frames and anchor placement with wall construction.

3.2 EXAMINATION

Examine sub-frames and conditions under which doors and frames are to be installed.
Proceed with the work only when sub-frames and conditions are satisfactory.

3.3 INSTALLATION

A. Install doors and frames and glazed light frames in accordance with HMMA 840 and with manufacturer's recommendations and instructions.
B. In addition, install fire-rated doors and frames in accordance with NFPA 80 and the manufacturer's fire test report installation data.
C. Remove and replace doors and frames damaged during delivery, storage, installation and construction.
1. Paste filler repair is not permitted.
2. Touch up scratched paint surfaces after installation.
D. Protection: Protect metal surfaces after installation. At Substantial Completion, doors and frames shall be without indication of use, deterioration, or damage.

END OF SECTION 081113