MULLION MATE® PRO FR, FIRE-RATED (PATENT PENDING) EXTRUDED ALUMINUM PARTITION GAP CLOSURE

SECTION 09 29 53

PART 1 – GENERAL

1.01 SECTION INCLUDES:

A. This section includes drywall accessories or noise control components featuring Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure, as shown on the Architectural Drawings.
B. Related sections include the following:
    1. Section 079219 "Acoustical Joint Sealants" for acoustical joint sealants installed in gypsum board assemblies.
    2. Section 084413 “Curtain Wall and Glazed Assemblies” for Curtain Wall Construction
    3. Section 092216 "Non-Structural Metal Framing" for non-structural steel framing and suspension systems that support gypsum board panels.
    4. Section 092613 "Gypsum Veneer Plastering" for gypsum base for veneer plaster and for other components of gypsum-veneer-plaster finishes.
    5. Section 092900 "Gypsum Board" for interior gypsum board, accessories, trim, and finishes.

1.02 RELATED DOCUMENTS/SECTIONS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions.
B. Division 1 Specification sections as it applies to work of this Section.
C. Finish Schedule or Finish Legend as it applies to work of this Section.

1.03 REFERENCES:

A. GENERAL
    1. Comply with applicable requirements of the following, except where more stringent requirements are indicated by building codes.
B. American Architectural Manufacturers Association (AAMA):
    1. AAMA 2604 – Specification for Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels
C. ASTM (American Society for Testing and Materials)
    1. ASTM D2247 Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
    2. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
    3. ASTM E1399/E1399M Standard Test Method for Cyclic Movement and Measuring the Minimum and Maximum Joint Widths of Architectural Joint Systems.
    4. ASTM E90-2016 Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
D. Underwriters Laboratory (UL)

1. UL 2079 Fire Resistance of Building Joint Systems

E. National Association of Architectural Metal Manufacturers (NAAMM)
   1. Metal Finishes Manual for Architectural and Metal Products

1.04 DESIGN/PERFORMANCE REQUIREMENTS:

A. All components of the Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure shall be provided by one (1) Manufacturer to ensure single source responsibility and quality control.

B. Partition Gap Closure shall meet specified performance requirements listed in ASTM E1399/E1399M-97 for the joint width minimum and maximum dimension verification as well as the cyclic movement performance for Class IV – Combined movement which encompasses Seismic, Thermal and Wind Sway, movement at a cycling rate greater than or equal to 10 cycles per minute.

C. Sound Transmission Class (STC) for Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure per ASTM E90-2016. See Table A for specific STC ratings.

Mullion Mate® Pro FR (Patent Pending)

		Baseline Wall STC			
		50	55	60	65
Mullion Mate® Pro - 4	4.0" Gap	50	54	58	62
	4.5" Gap	50	54	58	62
	5.0" Gap	50	54	57	61
Mullion Mate® Pro - 5.5	5.5" Gap	50	54	57	61
	6.0" Gap	50	54	57	60
	6.5" Gap	50	54	56	60
Mullion Mate® Pro - 7	7.0" Gap	50	53	56	59
	7.5" Gap	49	53	56	59
	8.0" Gap	49	53	55	58
	8.5" Gap	49	53	55	58

Table A

D. All materials are Class A rated per ASTM E84.

E. Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure passes the requirements of UL 2079 for a duration of two hours.

1.05 SUBMITTALS:

A. Submission must be made within ten (10) working days of the General Contract Award to avoid project delay.

B. Product Data: Submit Manufacturer's:
   1. Product Specifications
   2. Detail Drawings
   3. Installation Instructions

C. Samples:

1. Submit samples consisting of 12” long Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure and finish Q-Panel as specified, as well as accessories.

D. Sustainability:
   1. Materials and Resources
      a. Building Life-Cycle Impact Reduction
         i. LCAs for aluminum are available.
            a) Aluminum - http://www.gordon-inc.com/literature/pdf/cisca_background_report_aluminum_2020-04-24.pdf
      b. Building Product Disclosure and Optimization - Environmental Product Declarations
         i. Industry-average EPDs for aluminum are available.
            a) Aluminum - http://www.gordon-inc.com/literature/pdf/101.1_cisca_industry_wide_epd_aluminum_specialty_products.pdf
      c. Building Product Disclosure and Optimization - Sourcing of Raw Materials
         i. Regional Materials – Raw materials can be purchased from Vendors within 100 miles of the project location and fabrication of all materials in Bossier City, LA, U.S.A.
         ii. Gordon’s mission is to locate recycled materials that are not only of high recycled content, but extracted, produced, or extruded in the U.S.A.
      d. Building Product Disclosure and Optimization - Material Ingredients
         i. Full disclosure of material recycled content is available.
      e. Construction and Demolition Waste Management
         i. Most products shipped from our plant are engineered to fit and reduce field cutting during installation.
            a) Fewer indoor air quality problems
            b) Less scrap and debris – cleaner work environment
            c) Less noise pollution caused by field cutting of materials.
            d) Maintain comfort and well-being of workers and occupants.
   2. Indoor Environmental Quality
      a. Low-Emitting Materials
         i. Gordon’s State-of-the-art Powder Coating line produces the highest quality powder coated surfaces while also contributing to our sustainability drive.
            a) No heavy Metals used in pre-treatment.
            b) Processed water is fully compliant for introducing into waste stream.
            c) Extremely efficient use of powder coating through reclamation system reducing powder wastage.
            d) Factory finished products shipped from our plant eliminates field painting.

1. Prevents odorous and irritating air contaminants.
2. Introduces no hazardous waste.
3. Contributes no VOCs.
4. Maintains comfort and well-being of workers and occupants.

b. Interior Lighting

i. Gordon's AAMA 2604 powder coating finishes can provide the proper light reflectance to improve illumination in the space and reduce lumen output requirements.

c. Acoustic Performance

i. Gordon's Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure provides STC value for transitions at the building perimeter and curtainwall.

3. Innovation

a. Innovation

i. Gordon is a strategic partner with the design community and continuously finds ways to design products that can aid in improving environmental performance.

b. LEED Accredited Professional

i. Gordon has LEED Accredited Professionals on staff to assist with your sustainability requirements.

4. Detailed explanation of LEED Credits and Gordon, Inc.'s Contribution can be located at http://www.gordon-inc.com/company/sustainability/.

E. Certification: Submit certification from Manufacturer of accessory attesting products comply with specified requirements, including finish as specified.

F. Qualification Data:

1. Firms specified in "Quality Assurance" Article must demonstrate their capabilities and experience by including lists of completed projects with project names and addresses, names and addresses of Architects and owners, and other information specified.

1.06 QUALITY ASSURANCE:

A. Source Limitations:

1. All components of the Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures shall be provided by a single Manufacturer to ensure responsibility and quality control.

B. Manufacturer Qualifications:

1. A manufacturer must have manufacturing and delivery capacity required for the project and shall have successfully completed at least ten (10) projects within the past five (5) years, utilizing systems, materials, and techniques as herein specified.
2. A manufacturer must own and operate its own manufacturing facilities for all metal components. "Stick Built" or "Kit of Parts Systems" consisting of

components from a variety of Manufacturers/Fabricators will not be considered or accepted.

3. Manufacturer must own and operate its own painting and finishing facility to assure single source responsibility and quality control.

C. Installer Qualifications:
   1. Installers shall have a minimum of five (5) years of experience installing systems of similar type and scope as those specified in this section.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING:

A. All materials shall be protected during fabrication, shipment and installation to prevent damage to the finished work from other trades.
B. To avoid lasting deformation of the Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure components when exposed to temperature and humidity extremes, store this material at or near room temperature. Allow a minimum of 48 hours for the product to adjust to internal room temperature and humidity conditions before installing the Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure.
C. Store Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures inside a well-ventilated area, away from uncured concrete and masonry, and protected from the weather, moisture, soiling, abrasion, extreme temperatures, and humidity.
D. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommend by Manufacturer for optimum results. Do not install products under environmental conditions outside Manufacturer's recommendations.
E. Exercise care in loading, unloading, storing, and installing units so as to preclude bending, warping, twisting and other surface damage.

1.08 WARRANTY:

A. Standard Warranty:
   1. Furnish Manufacturer's Standard Warranty of one (1) year for workmanship and for finish against defects in materials and/or workmanship.
B. Extended Workmanship Warranty:
   1. Furnish Manufacturer's Standard Workmanship Warranty (must be requested at time of quotation) may be extended up to a Limited Lifetime Warranty from date of material shipment, when installed in accordance with Manufacturer's recommendations.
C. Extended Finish Warranty:
   1. Furnish Manufacturer's Standard Finish Warranty (must be requested at time of quotation) may be extended up to a maximum of twenty (20) years from date of material shipment, when installed in accordance with Manufacturer's recommendations.

1.09 SUBSTITUTIONS:

A. No substitutions are permitted for the Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closure.
B. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00. Companies desiring to submit a proposal shall submit all descriptive information of the system proposed including photographs and Shop Drawings of at

least ten (10) projects within the past five (5) years, utilizing systems, materials and techniques as herein specified.

PART 2 - PRODUCTS

2.01 MANUFACTURERS:

A. Basis-of-Design: Subject to compliance with requirements, provide Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures manufactured by Gordon, Inc. For all inquiries contact:

Gordon, Inc.
5023 Hazel Jones Road
Bossier City, LA 71111,
(800) 747-8954
sales@mullionmate.com

B. The listed Manufacturer shall not be construed as closing specifications to other prospective Manufacturers, but rather as establishing a level of quality in a metal system. Other systems may be submitted for approval, as provided for in the specifications at least ten (10) working days prior to submission of bids. Companies desiring to submit a proposal shall submit all descriptive information of the system proposed including photographs and Shop Drawings of at least ten (10) projects within the past five (5) years, utilizing systems, materials, and techniques as herein specified.

2.02 MATERIALS:

A. Provide metals free from surface blemishes where exposed to view in finished Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures. Surfaces exhibiting pitting, seam marks, roller marks, stains, discolorations, or other imperfections on finished Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures are not acceptable. All metal shall be of the highest commercial grade available.

B. Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures are factory-assembled, and spring loaded to provide a tight fit for vertical junctures of partitions and window walls.

C. Materials:
   1. Aluminum extrusions: 6063-T5 or T6 temper alloy.
   2. Aluminum sheet, 3000 series alloy.

2.03 FABRICATION:

A. Provide Extruded Aluminum Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures in specified lengths and size to fit specified openings.
   1. Specify **Mullion Mate® Pro FR - 4** for openings 4” – 5 7/16”.
   2. Specify **Mullion Mate® Pro FR - 5.5** for openings 5 1/2”– 6 15/16”.
   3. Specify **Mullion Mate® Pro FR - 7** for openings 7”- 8.1/2”.

Single-Piece construction available in lengths up to sixteen (16) feet.

B. Provide Mullion Mate® Corner Trim in ten (10) foot lengths for field cutting.
   1. Mullion Mate® Corner Trim **MMFRCNRZ10**

C. Intumescent/Insulation Materials Assembly

1. Refer to Manufacturer's Installation Instructions for correct placement of Intumescent/Insulation Materials.

2.04 FINISHES:

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.
B. All material shall be in a finish chosen from one of the following options:
    1. Field Paintable
    2. Factory Anodized
        a. Standard satin clear anodized.
        b. Custom color anodized.
    3. Factory applied Powder Coating to match Standard Colors or Custom Color and gloss as required.
        a. Factory finish with a 5-stage pretreatment with dried-in-place conversion coating followed by:
            i. AAMA 2604, super durable compliant powder coating, with Antimicrobial Properties, which provide up to 99.9999% efficacy.

PART 3 - EXECUTION

3.01 EXAMINATION:

A. Examination of Surfaces: Installer must examine conditions under which work is to be performed and must notify Contractor in writing of unsatisfactory conditions.
B. Verify that field measurements and block-out dimensions are as shown on Shop Drawings.

3.02 PREPARATION:

A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the Manufacturer to achieve the best result for the project conditions.
C. To avoid lasting deformation of the Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures components when exposed to temperature and humidity extremes, store this material at or near room temperature. Allow a minimum of 48 hours for the product to adjust to internal room temperature and humidity conditions before installing the Mullion Mate® Pro FR, Fire-Rated Extruded Aluminum Partition Gap Closures.

3.03 INSTALLATION:

A. General: Comply with Manufacturer's printed instructions, governing regulations for Seismic Codes, and any other regulations applicable to work.
B. Space Enclosure: Do not install any work until space is enclosed and weatherproofed, wet-work in space is completed and nominally dry, work above ceilings is complete, and temperature and humidity shall be continuously maintained at values near those of final occupancy.

3.04 CLEANING:

A. Follow Manufacturer's cleaning instructions for specified finish.

3.05 PROTECTION:

A. Procedures: Advise the Contractor of procedures required to protect the finished work from damage during the remainder of the construction period.

END OF SECTION