SECTION 079500 - EXPANSION CONTROL

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Expansion joint cover assemblies:

1. Interior expansion joint covers.

2. Exterior expansion joints, watertight.

B. Related Sections:

1. Section 070500 "Common Work Results for Thermal and Moisture Protection"

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For each expansion joint cover assembly. Include plans, elevations, sections, details, splices, block-out requirement, attachments to other work, and line diagrams and a tabular schedule of expansion joint cover assemblies.

C. Samples: For each expansion joint cover assembly.

D. Manufacturer's color charts.

PART 2 - PRODUCTS

2.1 ASSEMBLY DESCRIPTION

A. Factory-fabricated joint systems, including closure materials and transition pieces, T-joints, corners, curbs, cross-connections, and other accessories as required to provide continuous expansion joint cover assemblies.

1. Furnish units in longest practicable lengths to minimize field splicing.

2. Provide fire-rated components where required by authorities having jurisdiction.

2.2 PERFORMANCE REQUIREMENTS

A. Seismic Performance: Expansion joint cover assemblies shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

B. System Movement Capabilities: Comply with the following industry standard requirements:

1. 25%+- operating range for thermal conditions.

2. 50%+- operating range for seismic and wind sway conditions.

2.3 MANUFACTURERS

A. Basis of Design: MM Systems, Inc.

B. Other Acceptable Manufacturers:

1. Balco

2. Construction Specialties

3. InPro Architectural Products.

2.4 INTERIOR EXPANSION JOINT COVERS

A. Metal-Plate Floor-to-Floor Joint Covers, Surface-Mounted:

1. Basis of Design: HFP-2-1 manufactured by MM Systems Corporation.

2. Load Capacity:

a. Uniform Load: 50 lb/sq. ft.

b. Concentrated Load: 300 lb.

c. Maximum Deflection: 0.0625 inch.

3. Exposed Metal: Mill-finished aluminum.

B. Metal-Plate Floor-to-Wall Joint Covers, Surface-Mounted:

1. Basis of Design: HFPE-2-1 manufactured by MM Systems Corporation.

2. Installation: Surface mounted.

3. Load Capacity:

a. Uniform Load: 50 lb/sq. ft.

b. Concentrated Load: 300 lb.

c. Maximum Deflection: 0.0625 inch.

4. Exposed Metal: Mill-finished aluminum.

C. Metal-Plate Wall-to-Wall/Corner Joint Cover, Surface-Mounted:

1. Basis of Design: VSL-2-1 STUD manufactured by MM Systems Corporation.

2. Exposed Metal: Aluminum, Color anodic, Class I. The Architect will select the color.

D. Pre-formed Elastomeric Ceiling Joint Cover, Recessed:

1. Basis of Design: DX-200 manufactured by MM Systems Corporation.

2. Seal: Preformed, pre-compressed elastomeric seal adhered to sides of joint gap.

3. Color: Selected by the Architect.

2.5 EXTERIOR EXPANSION JOINT COVERS

A. Elastomeric-Seal / Concealed Aluminum-Frame Wall Joint Cover, Recessed

1. Seal: Preformed elastomeric membrane or extrusion. Color as selected by the Architect.

2. Metal Frame: Extruded aluminum, Mill finish.

2.6 MATERIALS

A. Aluminum: ASTM B221, Alloy 6063-T5 for extrusions; ASTM B209, Alloy 6061-T6 for sheet and plate.

B. Elastomeric Seals: Manufacturer's standard preformed elastomeric membranes or extrusions.

C. Fire Barriers: Any material or material combination, to comply with performance criteria for required fire-resistance rating.

D. Nonmetallic, Shrinkage-Resistant Grout: ASTM C1107/C1107M.

2.7 ACCESSORIES

A. Manufacturer's standard attachment devices, as indicated or required for complete installations.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Metal Frames: Perform cutting, drilling, and fitting required to install expansion joint cover assemblies.

1. Repair or grout block out as required for continuous frame support using nonmetallic, shrinkage-resistant grout.

2. Install frames in continuous contact with adjacent surfaces.

a. Shimming is not permitted.

3. Install in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.

4. Adjust for differences between actual structural gap and nominal design gap due to ambient temperature at time of installation.

5. Cut and fit ends to accommodate thermal expansion and contraction of metal without buckling of frames.

6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches (75 mm) from each end and not more than 24 inches (600 mm) o.c.

B. Seals: Install elastomeric seals and membranes in frames to comply with manufacturer's written instructions. Install with minimum number of end joints.

1. Provide in continuous lengths for straight sections.

2. Seal transitions. Vulcanize or heat-weld field-spliced joints as recommended by manufacturer.

C. Install with hairline mitered corners where expansion joint cover assemblies change direction or abut other materials.

D. Terminate exposed ends of expansion joint cover assemblies with field- or factory-fabricated termination devices.

3.2 PROTECTION

A. Do not remove protective covering until finish work in adjacent areas is complete.

B. Protect the installation from damage by work of other Sections.

END OF SECTION 079500