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## **SECTION 09 51 13 PERIMETER TRANSITION SYSTEM**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

Drawings and general conditions of Contract, including General and Supplementary Conditions and Divisions-1 Specification sections apply to work of this section.

#### **1.2 SUMMARY**

- A. Section Includes:
  - 1. Pre-engineered perimeter transition system
- B. Related Sections:
  - 1. Section 08 44 00 – Curtain Wall and Glazed Assemblies
  - 2. Section 09 51 00 (09510) – Acoustical Ceilings
  - 3. Section 09 20 00 (09250) – Plaster and Gypsum Board
  - 4. Division 12 – Specialties – Roll-up Shades
  - 5. Divisions 23 (15) – HVAC
  - 6. Division 26 (16) Sections - Electrical Work
- C. Alternates
  - 1. Prior Approval: Unless otherwise provided for in the Contract documents, proposed product substitutions may be submitted no later than TEN (10) working days prior to the date established for receipt of bids. Acceptability of a proposed substitution is contingent upon the Architect's review of the proposal for acceptability and approved products will be set forth by the Addenda. If included in a Bid are substitute products which have not been approved by Addenda, the specified products shall be provided without additional compensation.
  - 2. Submittals that do not provide adequate data for the product evaluation will not be considered. The proposed substitution must meet all requirements of this section, including but not necessarily limited to, the following: Single source materials suppliers (if specified in Section 1.5); panel design, size, composition, color, and finish; suspension system component profiles and sizes; compliance with the referenced standards.

#### **1.3 REFERENCES**

- A. American Society for Testing and Materials (ASTM):
  - 1. ASTM C 635 Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
  - 2. ASTM C 636 Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
- B. American National Standards Institute (ANSI)
  - 1. ANSI H35.1 Properties and Characteristics of Wrought Aluminum Alloys

#### **1.4 SUBMITTALS**

- A. Product Data: Submit manufacturer's technical data for perimeter components and each type of suspension system required.
- B. Samples: Minimum 3 inch wide samples of specified component.
- C. Shop Drawings: Layout and details of acoustical ceilings. Show locations of items that are to be coordinated with, or supported by the ceilings.

#### **1.5 QUALITY ASSURANCE**

- A. Single-Source Responsibility: Provide perimeter trim components and grid components by a single manufacturer.
- B. Coordination of Work: Coordinate acoustical ceiling work with installers of related work including, but not limited to building insulation, gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.

#### **1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver perimeter trim components to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- B. Before installing components permit them to reach room temperature and a stabilized moisture content.
- C. Handle components carefully to avoid damage.

#### **1.7 PROJECT CONDITIONS**

- A. Space Enclosure:

Building areas to receive ceilings shall be free of construction dust and debris. Products can be installed up to 120°F (49°C) and in spaces before the building is enclosed, where HVAC systems are cycled or not operating. Cannot be used in exterior applications where standing water is present or where moisture will come in direct contact with the ceiling.

#### **1.8 WARRANTY**

- A. Perimeter Transition System: Submit a written warranty executed by the manufacturer, agreeing to repair or replace components that fail within the warranty period. Failures include, but are not limited to:
  - 1. Rusting and manufacturer's defects
- B. Warranty Period:
  - 1. Perimeter Transition Components: Ten (10) years from date of substantial completion.
  - 2. Armstrong commercial transition components, suspension systems and ceiling products have a thirty (30) year warranty when installed together and used under normal conditions.
- C. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Perimeter Transition System:
  - 1. Armstrong World Industries, Inc.  
Mike Efeney 469-267-3488 wnefeney@armstrongceilings.com

### **2.2.0 PERIMETER TRANSITION SYSTEM**

- A. Product/Manufacturer: Axiom® Building Perimeter System; Armstrong World Industries, Inc.,
- B. System: An extruded aluminum trim used to create the transition between the perimeter and the ceiling plane. Commercial quality extruded aluminum alloy 6063 trim channel, factory finished in baked polyester paint (white) color to match intersecting grid system. Commercial quality aluminum unfinished t-bar connection clips; galvanized steel splice plates.
- C. Components:
  - 1. 3 Sided Axiom® Building Perimeter Pocket: Aluminum pocket form with special bosses to accept t-bar connection clip and splice plate; factory finished to match approved samples; factory or field cut miters to match approved shop drawings.
    - a. AXP355C
  - 2. 2 Sided Axiom® Building Perimeter Pocket: Aluminum pocket form with special bosses to accept t-bar connection clip and splice plate; factory finished to match approved samples; factory or field cut miters to match approved shop drawings.
    - a. AXP255S – 2 Sided Perimeter Pocket, Acoustical/Drywall Transition (5 inches x 5 inches)
    - b. AXP255SOSC – 2 Sided Perimeter Pocket, Acoustical/Drywall Transition Outside Corner (12 inches x 5 inches x 12 inches).
    - c. AXP255SISC - 2 Sided Perimeter Pocket, Acoustical/Drywall Transition Inside Corner (12 inches x 5 inches x 12 inches).
    - d. AXP255SC – 2 Sided Perimeter Pocket, Connection to Extension/Diffuser Piece (5 inches x 5 inches).
    - e. AXP255SCOSC - 2 Sided Perimeter Pocket, Connection to Extension/Diffuser Piece, Outside Corner (12 inches x 5 inches x 12 inches).
    - f. AXP255SCISC - 2 Sided Perimeter Pocket, Connection to Extension/Diffuser Piece, Inside Corner (12 inches x 5 inches x 12 inches).
  - 3. Axiom® Building Perimeter Extensions: Pre-engineered extension components to be used to create larger pockets and ceiling elevation changes. The aluminum extension component integrates with the perimeter pocket.
    - a. AXPEP4S – Axiom Perimeter Extension, 4 inch
    - b. AXPEP6S – Axiom Perimeter Extension, 6 inch
    - c. AXPEP8S – Axiom Perimeter Extension, 8 inch
  - 4. Axiom® Building Perimeter Diffuser Face Plates: Pre-engineered face plates to accommodate diffusing air boots supplied by others. Aluminum diffuser face plate integrates into integral hooks integrated into perimeter pocket component. Face plates integrate into acoustical ceiling seismic design, or drywall in the manner and width shown on architectural drawings.
    - a. AXPDFPS4 – Axiom Perimeter Diffuser Face Plate; 4 inches; un-slotted.
    - b. AXPDFPS4SLA – Axiom Perimeter Diffuser Face Plate; 4 inches; slotted (3/4 inch x 23 inches) - 2 slot pattern.
    - c. AXPDFPS4SLB – Axiom Perimeter Diffuser Face Plate; 4 inches; slotted (2-3/4 inch x 23 inches) - 1 slot pattern.
    - d. AXPDFPS7 – Axiom Perimeter Diffuser Face Plate; 7 inches; un-slotted.
    - e. AXPDFPS7SLA – Axiom Perimeter Diffuser Face Plate; 7 inches; slotted (3/4 inch x 23 inches) - 2 slot pattern.

- f. AXPDFPS7SLB – Axiom Perimeter Diffuser Face Plate; 7 inches; slotted (2-3/4 inch x 23 inches) - 1 slot pattern.
  - g. AXPDFP4DT – Axiom Perimeter Diffuser Face Plate Drywall Transition; 4 inches; un-slotted.
  - h. AXPDFP4DTSLA – Axiom Perimeter Diffuser Face Plate Drywall Transition; 4 inches; slotted (3/4 inch x 23 inches) - 2 slot pattern.
  - i. AXPDFP4DTSLB – Axiom Perimeter Diffuser Face Plate Drywall Transition; 4 inches; slotted (2-3/4 inch x 23 inches) - 1 slot pattern.
  - j. AXPDFP7DT – Axiom Perimeter Diffuser Face Plate Drywall Transition; 7 inches; un-slotted.
  - k. AXPDFP7DTSLA – Axiom Perimeter Diffuser Face Plate Drywall Transition; 7 inches; slotted (3/4 inch x 23 inches) - 2 slot pattern.
  - l. AXPDFP7DTSLB – Axiom Perimeter Diffuser Face Plate; 7 inches; slotted (2-3/4 inch x 23 inches) - 1 slot pattern.
5. Axiom® Building Perimeter Closure Clips: Aluminum clip to conceal pocket when shade or blind is installed.
    - a. AXPCC2 – Axiom Building Perimeter Closure Clip – 2 inch
    - b. AXPCC3 – Axiom Building Perimeter Closure Clip – 3 inch
  6. Axiom® Bottom Drywall Trim, AXBTSTR, (for 5/8 inch drywall): aluminum extrusions formed to provide taping flange for drywall finish.
  7. Axiom® Building Perimeter End Plate, AXCPCI: caps end of perimeter pocket.
  8. T-bar Connector Clip: galvanized steel, unfinished, used to attach channel trim to suspension members.
    - a. BERCAXT – for use in seismic installations with drywall, lay-in, tegular, concealed tile, and full-size Vector installations.
  9. Splice Clips: splice with set screws, galvanized steel, unfinished, used to attach joints between sections of trim.
    - a. AXSPLICE – Splice with 2 set screws, used to join corners
    - b. AX4SPLICE – Splice with 4 set screws, used to join straight sections
  10. Foam Gasket: 10 foot long gasket, 1/2 inch x 1/2 inch, self stick for field application, used between perimeter pocket and wall. (NOTE: will need to be ordered separately)
  11. Spline, AXSPLINE: 0.175 inch diameter spline locks horizontal and vertical extension plates to box trim; helps maintain trim alignment.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations.

### **3.2 PREPARATION**

- A. Coordinate panel layout with mechanical and electrical fixtures.

### **3.3 INSTALLATION**

- A. Install suspension system and panels in accordance with manufacturer's instructions, LA-297427, and in compliance with ASTM C 636 and with the authorities having jurisdiction.

### **3.4 ADJUSTING AND CLEANING**

- A. Clean exposed surfaces of trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

**END OF SECTION**