

## **SECTION 09 22 26**

### **DRYWALL GRID LINEAR LIGHTING INTEGRATION**

#### **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. Divisions 23 (15) – HVAC
5. Division 26 (16) Sections - Electrical Work
6. Section 26 50 00 Lighting

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 Specifications for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
2. ASTM C 636 Recommended Practices for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
3. ASTM E 580 Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint
4. ASCE 7 American Society of Civil Engineers, Minimum Design Loads for Buildings and Other Structures
5. International Code Council-Evaluation Services - AC 156 Acceptance Criteria for Seismic Qualification Testing of Non-structural Components
6. LEED - Leadership in Energy and Environmental Design is a set of rating systems for the design, construction, operation, and maintenance of green buildings

- B. American National Standards Institute (ANSI)
  - 1. ANSI H35.1 Properties and Characteristics of Wrought Aluminum Alloys

## **1.4 Systems Description**

Build Type / Finished Form as selected by customer

## **1.6 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.

## **1.7 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.

## **1.8 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.

## **1.9 PROJECT CONDITIONS**

- A. Space Enclosure:

Building areas to receive ceilings shall be free of construction dust and debris. Products with 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.

## **1.10 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. Drywall Suspension Systems:
  - 1. Armstrong® World Industries, Inc.
- B. Axiom DGS Linear Lighting Kit:
  - 1. Armstrong® World Industries, Inc.
- C. Lighting Fixture
  - 1. XAL LENO
  - 2. Axis Click

### **2.2. DRYWALL SUSPENSIONS SYSTEM**

A. Armstrong® Ceilings Drywall Suspension Systems all main beams and cross tees shall be commercial quality hot-dipped galvanized steel

1. Tee: manufactured main beam- 1-1/2" knurled face with ScrewStop™ reverse hem by 1-11/16 inches high. Drywall Main Beams are factory punched with crosstee routs and hanger wire holes and SuperLock™ main beam clip for a strong secure connection and fast accurate alignment. Both ShortSpan® Framing System and Drywall Main Beams are Heavy-duty performance per ASTM C635

HD8906 - 12ft HD Drywall Main Beam 1-1/2IN

2. Cross Tees: manufactured main beam- 1-1/2" knurled face with ScrewStop™ reverse hem by 1-1/2 inches high with factory punched cross tee routs and hanger wire holes and XL stake on clip for a strong secure connection.

XL8965 - 6ft Drywall Cross Tee

3. Wall Molding:

KAM12 - 12ft Knurled Angle Molding 1-1/4" Face

4. Hanger wire: a Class 1 zinc coating, soft temper, pre-stretched, with a yield stress load of at least time three times the design load, but not less than 12-gauge.

5. Accessories:

DWC - Drywall Clip

## **2.4. AXIOM DGS LINEAR LIGHTING KIT**

- A. Product/Manufacturer: Drywall Linear Lighting; Armstrong World Industries, Inc.
- B. System: An extruded aluminum linear lighting trim kits design for integration in Armstrong® Ceilings Drywall Grid System and to create a light opening in a drywall ceiling with integrated XAL LENO or Axis Click light fixture, installs with Armstrong drywall suspension systems. Commercial quality aluminum unfinished t-bar connection clips; galvanized steel splice plates.
- C. Components:
  - 1. Drywall Linear Lighting Trim Kit: Extended aluminum trim kit with distinct features creates a seamless integration between 5/8" drywall ceilings and linear lighting for consistent fit and finish. Special bosses are designed to connect AXTCB T-bar connector clip and splice plate; factory finished to match approved samples.
    - A. DGCLLTK24 - 2' Linear Light Trim Kit (24" long x 4" wide)
    - B. DGCLLTK30 - 2' – 6" Linear Light Trim Kit (30" long x 4" wide)
    - C. DGCLLTK48 - 4' Linear Light Trim Kit (48" long x 4" wide)
    - D. DGCLLTK60 - 5' Linear Light Trim Kit (60" long x 4" wide)
    - E. DGCLLTK72 - 6' Linear Light Trim Kit (72" long x 4" wide)
    - F. DGCLLTK90 - 7'– 6" Linear Light Trim Kit (90" long x 4" wide)
    - G. DGCLLTK96 - 8' Linear Light Trim Kit (96" long x 4" wide)
    - H. DGCLLTK120 - 10' Linear Light Trim Kit (120" long x 4" wide)
    - I. DGCLLTKCON - 10' Continuous Linear Light Trim Kit (10' long)
  - 2. Trim Kit Components Included
    - A. Aluminum Extrusions (2)
    - B. Connector Brackets (Varies)
    - C. End Plates (2)
    - D. #8-32 x 5/16" Pan Head Machine Screws
    - E. #6-20 x 5/8" Pan Head Sharp Point Screws

## **2.5 LIGHTING FIXTURE**

- A. XAL LENO
  - 1.Product/Manufacturer: XAL
  - 2.Product Name: LENO
  - 3.Size: nominal 4" wide LED linear light
  - 4.Ceiling Grid Compatibility: Armstrong® World Industries

5.Color: Finished Trim in white

B. Axis Click

- 1.Product/Manufacturer: Axis Lighting
- 2.Product Name: Click
- 3.Size: nominal 4" wide LED linear light
- 4.Ceiling Grid Compatibility: Armstrong® World Industries
- 5.Color: Finished Trim in white

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

A: Prior to installation, inspect previous work of all other trades. Verify that all work is complete and accurate to the point where this installation may properly proceed in strict accordance with framing shop drawings.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Installation: In accordance with all approved plans, details, and manufacturer's installation guidelines located in the Armstrong Drywall Grid Systems and ShortSpan® Framing System Installation Guides.

- (1) Install seismic components if required by the building code. Seismic components to be specified on the architectural plans by the project engineer or design team.

### **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, and in compliance with ASTM C 636 and with the authorities having jurisdiction

1. Install seismic components if required by the building code. Seismic components to be specified on the architectural plans by the project engineer or design team.

### **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**