

Guideline Specifications

GORDON EXTRUDED ALUMINUM INTERIOR LIGHT BEAM GRID SYSTEMS
DIVISION 09510

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This section includes extruded aluminum ceiling grid system as shown on the drawings.
- B. Related sections include the following: (list applicable sections)

1.3 SUBMITTALS

A. Manufacturer's Literature and Data:

- 1. Product Data: Submit manufacturer's technical data and brochures for each type of Light Beam Grid system required.

B. Shop Drawings

- 1. Shop drawings shall show dimensions, sizes, thickness, alloys, perimeter details, finishes, joining, attachments, and relationship of adjoining work, as well as reflected ceiling plans.

C. Samples:

- 1. Samples shall include three, 6" pieces of each type of Light Beam Grid system, connection clip system and finish as specified.

D. Certification:

- 1. Submit certificates from manufacturer of Light Beam Grid system attesting that products comply with specified requirements including finish as specified.

E. 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.

1.4 QUALITY ASSURANCE

- A. Manufacturer: Firm with manufacturing and delivery capacity required for the project, shall have successfully completed at least ten projects within the past five years, utilizing systems, materials and techniques as herein specified.
- B. Fabricator 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 will not be considered or accepted.
- C. Manufacturer/Fabricator must own and operate its own Painting and Finishing facility to assure single source responsibility and quality control.

- D. Manufacturer/Fabricator must assemble all electrical elements in-house and within the strict guidelines and requirements of Underwriters Laboratories (UL) and be certified as a UL recognized manufacturer.

1.5 DELIVERY, STORAGE & HANDLING

- A. All materials shall be protected during fabrication, shipment, site storage and erection to prevent damage to the finished work from other trades. Store materials inside a well-ventilated area, away from uncured concrete and masonry, and protected from the weather, moisture, soiling, abrasion, extreme temperatures, and humidity.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Light Beam (select from below) beam grid system shall be manufactured by Gordon Interior Specialties Division, Gordon, Inc., P.O Box 4347, Shreveport, LA 71134, (800) 747-8954, Fax (800) 877-8746.
 - 1. BM2X4 – Nominal 2" X 4" Beam – Indirect Lighting option
 - 2. BM234X5 – Nominal 2-3/4" X 5" Beam – Indirect Lighting option
 - 3. LB2X4 – Nominal 2" X 4" Beam – Direct Lighting option
 - 4. BM3X6 – Nominal 3" X 6" Beam – Indirect Lighting option
- 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 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 three projects similar in detail and scope.

2.2 MATERIALS

A. SUSPENSION SYSTEM

- 1. Extruded aluminum Light Beam (select from below) beam grid system.
 - a. BM2X4 – Nominal 2" X 4" Beam – Indirect Lighting option
 - b. BM234X5 – Nominal 2-3/4" X 5" Beam – Indirect Lighting option
 - c. LB2X4 – Nominal 2" X 4" Beam – Direct Lighting option
 - d. BM3X6 – Nominal 3" X 6" Beam – Indirect Lighting option
- 2. The grid system shall form a (specified) module size. Main beams and floating Perimeter beams shall be supported a minimum of 48" O.C. with ASTM rated turnbuckles and all-thread rod. Cross beams shall be attached to main beams by means of the LB quick-connect system consisting of interlocking aluminum scissors-action set-screw clips to afford rigid lateral connection and alignment.

3. Deflection of beam system shall be limited to L/360 of the span when full dead load is applied.
4. Provide metals free from surface blemishes where exposed to view in finished unit. Surfaces that exhibit pitting, seam marks, roller marks, stains, discolorations, or other imperfections on finished units are not acceptable. All metal shall be of the highest-grade commercial type.

B. OPTIONAL ACCESSORIES

1. UL approved Light Fixtures with T-8 Lamps per UL Standard 1598 (Luminaires)
 - a. BM2X4 – Lay-in Fixture Assembly for Indirect Lighting
 - b. BM234X5 – Factory installed UL approved Light Assemblies for Indirect Lighting
 - c. LB2X4 – Factory installed UL approved Light Assemblies for Direct Lighting
 - d. BM3X6 – Factory installed UL approved Light Assemblies for Indirect Lighting
2. Light Beam FlexHead[®] Sprinklers
 - a. Stainless Steel pipe and support bracket specifically designed to penetrate through the cross beam and mount to the top of the beam.
 - b. Flexible Sprinkler Drop for ease of installation.

FlexHead[®] is a registered trademark of FlexHead Industries.
3. Reveal Snaps
 - a. ½" X ½" reveal snap to provide continuous reveal between Main Beams and Cross Beams
 - b. Available with BM2X4 and BM234X5
4. Panels
 - a. (Lay-in) or (Clip-In) panel factory fabricated to custom module size finished to match beam system.
 - i. Non-Perforated
 - ii. Custom Perforated

2.3 FABRICATION

- A. Provide Light Beam (select from below) beam grid system with all necessary suspension and connection clips for attachment of main beams, cross beams and perimeter beams.
 1. Extruded aluminum Light Beam (select from below) beam grid system.
 - a. BM2X4 – Nominal 2" X 4" Beam – Indirect Lighting option
 - b. BM234X5 – Nominal 2-3/4" X 5" Beam – Indirect Lighting option
 - c. LB2X4 – Nominal 2" X 4" Beam – Direct Lighting option
 - d. BM3X6 – Nominal 3" X 6" Beam – Indirect Lighting option
- B. Provide factory-mitered and welded corners for floating perimeter conditions.

2.4 FINISHES

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.
- B. Factory applied Acrogard™ super durable polyester powder coat finish
1. All Light Beam Grid system shall receive a micro-etched pretreatment prior to receiving an electrostatically applied Acrogard™ powder coat paint finish.
 2. All exposed surfaces must be coated. Finish shall be cured and oven baked to insure paint adhesion and uniform surface hardness.
 3. Paint to be PDR_____ as selected from standard colors (or approved custom color).

or

- B. High Performance Organic Coating Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical finish: acid chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pre-treat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's instructions.

1. Fluoropolymer Coating System: Manufacturer's standard 2, 3, or 4 -coat thermo-cured system composed of specially formulated inhibitive primer, fluoropolymer color coat, and clear fluoropolymer topcoat, with both color coat and clear topcoat containing not less than 70% polyvinylidene fluoride resin by weight; complying with AAMA 605.2.
2. Aluminum shall receive a factory applied and baked finish of 70% polyvinylidene fluoropolymer (PVDF) resin (Kynar®)

.Kynar® is a registered trademark of ARKEMA, Inc.

3. Color & Gloss: To be selected from manufacturer's standard available

or

- B. Factory applied powder coat finish
1. All material shall receive a micro-etched pretreatment prior to receiving an electrostatically applied powder coat paint finish.
 2. All exposed surfaces must be coated. Finish shall be cured and oven baked to insure paint adhesion and uniform surface hardness.
 3. Paint to be PDR_____ as selected from standard colors (or approved custom color).

or

- B. Factory applied wet paint finish
1. All beams and metal in-fill panels shall be supplied with a sprayed water-born, cross-linked baked acrylic finish.
 2. Paint to be VX_____ as selected from standard colors (or approved custom color).
- C. All finishes except Kynar shall meet or exceed all Clean Air Standards for EPA or State, and be USDA approved.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine building structure scheduled to receive ceiling system for unevenness or irregularities that would affect quality and execution of work. Notify contractor in writing of any unsatisfactory conditions.
- B. Tolerances:
 - 1. Install beam system with maximum permissible deflection of $L/360$ of span maximum surface deviation of $1/8"$ in $10' - 0"$ (No load applied) ASTM 635-92.
- C. Verify that Light Beam parts coordinate with bill-of-material on shop drawings.

3.2 INSTALLATION

- A. General: Comply with manufacturer's printed instructions, with governing regulations for Seismic Codes, and with the Ceiling & Interior Systems Construction Association standards 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.

3.3 CLEANING

- A. Clean all surfaces following installation. If necessary use only a mild soap or detergent solution such as TSP-90 or Ivory.
- B. Replace units having scratches, abrasions, or other defects, with unblemished panels, or suspension.
- C. Maintenance per manufacturer's finish maintenance instructions.

3.4 PROTECTION

- A. Protection of Light Beam from damage by other trades after installation to be provided by general contractor.